

*State of Alaska
Epidemiology*



Bulletin

*Recommendations
and
Reports*

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Volume No. 5 Number 2
June 19, 2001

HIV Infection in Alaska through 2000

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Acknowledgments: The authors especially thank

Duane Fridley – *for Data Analysis Support*
Katherine Mee - *for Graphics Preparation*
Luann Younker – *for Graphics and Secretarial Preparation*
Coleen Greenshields – *for Assistance with Graphics*

OVERVIEW

This technical report provides data on HIV infection in Alaska from the time the first HIV infection was diagnosed in 1982 through December 31, 2000. AIDS became a condition reportable to the Division of Public Health in 1985 and HIV infection (with or without AIDS) became reportable in 1999. The HIV data presented in this report are drawn from disease reporting by providers and laboratories, case investigations conducted by HIV/STD Program staff, and partner notification activities conducted by public health personnel. In addition to these data, the report includes recommendations based on broader scientific information about HIV and disease trends in other areas of the country. Reports and Recommendations are posted on the Section of Epidemiology's website at <http://www.epi.hss.state.ak.us>. Questions about the data or the report may be directed to the authors at (907) 269-8000.

Alaska remains a low prevalence area for HIV infection, with 40 individuals reported as newly diagnosed with HIV or AIDS in 2000. An additional 37 HIV cases diagnosed in prior years were first reported in 2000. A cumulative total of 781 cases of HIV infection were reported in Alaska through December 31, 2000, 237 with HIV infection without AIDS and 544 with HIV infection with AIDS. Advances in medical treatment have slowed progression to AIDS for many HIV-infected individuals and reduced HIV-related death rates in Alaska.

Male-male sex was the exposure category to which the largest number of HIV cases was attributed (367 or 47% of 781 cumulative cases). Injection drug use alone remained an important risk factor in Alaska, accounting for 92 (12%) of 781 total HIV cases; 64 (10%) of 647 cases in males, and 28 (21%) of 134 cases in females were attributed to injection drug use. An additional 37 HIV cases (5%) were attributed to the combined risks of male-male sex and injection drug use. Only 4 (1%) cases of perinatally acquired HIV infection were reported in Alaska, none diagnosed after 1996. No reported HIV cases attributed to transfusion/transplant were diagnosed after 1990, and no cases with exposure related to hemophilia were diagnosed after 1996. Only a small number of HIV cases were reported in young persons: 23 (3%) of 781 cumulative HIV cases occurred in persons who were less than 20 years old at first diagnosis, with no cases diagnosed in persons younger than 18 years after 1996.

A total of 134 (17% of 781 total cumulative cases) HIV cases were in females. Among adult/adolescent cases in females, the impact of HIV was most marked among Alaska Native/American Indian (accounting for 48 of 120 or 40% of cases in females ≥ 15 years) and Black females (14 of 120 or 12% of cases in females ≥ 15 years). The proportions of HIV cases in females, and in racial/ethnic minority males and females, were greater in persons presumed to be HIV-infected more recently than in persons presumed infected earlier in the epidemic.

Alaska data on partner notification (eliciting and notifying sexual or injecting partners of HIV-infected persons of their exposure) illustrate the important role of this service and of public health professionals in conducting this service. Partner notification provides individualized services for individuals at highest risk of infection (those exposed to HIV), identifies previously undiagnosed infected persons, and identifies individuals or social groups who, although engaging in risk behavior with infected individuals, may not perceive themselves to be at risk of infection. Of 117 contacts named by 43 HIV infected persons participating in partner notification in 2000, 81 were located and counseled about their exposure, and 61 (75% of partners located) accepted HIV testing as part of that service. One HIV-infected individual not previously diagnosed was tested and assisted to seek medical care and supportive services.

In a low HIV prevalence area such as Alaska, each act of potentially risky behavior (for example, unprotected sexual intercourse, multiple sex partners, sharing injection drug equipment) is less likely to result in HIV exposure than in areas with high HIV prevalence. Many community institutions (for example, health care services, churches, schools, social services, and social organizations) have important roles in HIV prevention through increasing awareness in and providing accurate information to those segments of the general public whom they serve. These activities help to build a generally informed community that accepts and supports early HIV diagnosis and participation in medical care and supportive services for those who are infected.

When resources are limited, the strategy most likely to prevent new infections and increase diagnosis of existing but unrecognized infections is to target those resources specifically dedicated to HIV prevention to individuals at highest risk of infection. Those at highest risk of infection are the sexual and needle sharing partners of HIV-infected individuals. Programs to increase awareness and reduce risk behavior can be effectively designed with and targeted to HIV positive persons, men who have sex with men, injection drug users, and other persons at increased risk. The Alaska HIV Prevention Planning Group has established priorities for prevention interventions consistent with these principles to guide uses of federal HIV prevention resources in Alaska (see the *2001-2003 Alaska HIV Prevention Plan* on the Section of Epidemiology website <http://www.epi.hss.state.ak.us>).

Methods and Limitations in Interpreting Current Data

AIDS became a reportable condition in Alaska in 1985. HIV infection reporting was successfully implemented in 1999 with the support and cooperation of physicians, other health care providers, and laboratories. As reporting of HIV infection continues, these data will become increasingly valuable in identifying incidence of HIV infection, enabling earlier identification of changing trends in risk factors and more effective targeting of intervention activities. This report provides data on cases of HIV (with and without AIDS) reported in Alaska through December 31, 2000. Because Alaska case numbers are relatively small, these data should be interpreted in the context of cumulative scientific knowledge about HIV/AIDS.

Of HIV cases reported to the Division of Public Health in a given year, some were infected years ago and others were recently infected or recently diagnosed for the first time. Because it is usually difficult to know the true date of HIV infection, accurate HIV incidence data are lacking. Incidence of HIV diagnosis is used as a surrogate for HIV infection incidence, realizing that individual cases are diagnosed at different times, ranging from months to years after infection. Similarly, clinical detection of AIDS-defining conditions (a surrogate for AIDS incidence) occurs at different points in the HIV-AIDS continuum for different individuals.

People with HIV and AIDS undergo the same kinds of life events that people without HIV infection do -- they move into or out of Alaska, they may or may not interact with medical providers while they live here, and they may die of HIV or other causes in Alaska or elsewhere. Multiple types of surveillance activities are necessary to provide an accurate picture of HIV infection in Alaska. The following sections present the available data in different ways to depict cumulative and current aspects of the HIV epidemic in Alaska. For surveillance purposes, each HIV and AIDS case is counted only once (rather than once as an HIV case and a second time when the individual develops AIDS).

In many sections of this report, data are presented as proportions. It is important to keep in mind that the proportions represented by each of the constituent elements must add up to the whole (100%), and when one proportion decreases, the other(s) must increase. A proportionate increase does not necessarily mean that rates have changed. It is important to consider the actual number of cases or events involved, along with

any changes in proportions, before drawing conclusions.

HIV Cases Newly Reported in 2000
(Table 1)

Seventy-seven (77) unduplicated cases of HIV were newly reported to the Division of Public Health in 2000. Of these, 44 (57%) had diagnoses of HIV without AIDS and 33 (43%) had AIDS diagnoses. Of the 44 cases of HIV without AIDS, 25 were first diagnosed in 2000, 18 were first diagnosed with HIV prior to 2000, and date of first HIV diagnosis was unknown for one case. Of the 33 cases first reported with AIDS, 30 were first diagnosed with AIDS in 2000, 1 was diagnosed with AIDS prior to 2000, and date of AIDS diagnosis was unknown for 2 cases.

Table 1. Cases First Reported with HIV and/or AIDS in 2000 N=77

Total reported with HIV and/or AIDS			77
Diagnosis of HIV only (without AIDS)			44
In 2000		25	
Before 2000		18	
Diagnosis date unknown		1	
Diagnosis of AIDS			33
AIDS diagnosis in 2000		30	
HIV diagnosis also in 2000	14		
HIV & AIDS diagnosed at same time	8		
HIV diagnosed prior to AIDS onset but both in 2000	6		
HIV diagnosis date unknown		1	
HIV diagnosis before 2000		15	
AIDS diagnosis before 2000			1
AIDS diagnosis date unknown but HIV diagnosis before 2000			2

Of the 77 (unduplicated) cases of HIV and/or AIDS reported to the Division of Public Health for the first time in 2000 (Table 1), 40 cases had their first known HIV diagnosis in 2000 (25 cases of HIV without AIDS and 15 cases of HIV with AIDS). In 14 cases of AIDS that were first diagnosed in 2000 (47% of the 30 cases first diagnosed with AIDS in 2000), HIV infection was first diagnosed at the same time AIDS was diagnosed or only slightly earlier and still within 2000. Late HIV diagnosis precludes the benefits of early treatment and prolongs the time during which an infected person may unknowingly expose others.

The number of cases reported for the first time that had an HIV diagnosis in earlier years was much smaller in 2000 (37 or 48% of 77 cases reported in 2000) than in 1999 when HIV first became a reportable condition (244 or 87% of 279 cases reported in 1999), and is expected to decline further in future years.

Cumulative Reported HIV Cases through December 31, 2000

(Tables 2-3 and Figure 1)

From January 1, 1982 through December 31, 2000, a cumulative total of 781 cases of HIV infection were reported among individuals in Alaska. Cumulative HIV cases diagnosed and known deaths among cases are presented in Table 2 and by year in Figure 1. Figure 1 illustrates the overall increase in the number of individuals in the population living with HIV, as new individuals continue to become infected and previously infected individuals live longer.

Table 2. Summary of Cumulative Reported HIV Cases through December 31, 2000 N=781

Total HIV cases reported in Alaska	781
HIV with AIDS	544
HIV without AIDS	237
HIV/AIDS cases known to have died	263
HIV/AIDS cases not known to have died	518

The mean annual rate of reported AIDS cases in Alaska residents diagnosed from 1996-2000 (mean annual AIDS incidence rate) was 4.41 cases per 100,000 population. (Because there are small and fluctuating numbers of cases diagnosed from year to year in Alaska, the mean annual rate is used to give a more reliable estimate of the AIDS incidence rate over that time period.) This rate compares to an annual incidence rate of AIDS cases reported in the U.S. from July 1999 through June 2000 of 15.7 cases per 100,000 population. Figures used in these calculations are presented in Table 3, below. In Table 3, column headings are abbreviated as follows: (1) cases first diagnosed in persons who were Alaska residents at the time of their diagnosis are referenced as “Alaska AIDS cases” and (2) HIV cases (with and without AIDS) are referenced as “HIV Cases.”

The mean annual HIV incidence rate (cases with and without AIDS) reported in Alaska as diagnosed from

1996-2000 was 6.23 cases per 100,000 population. No comparable figure is available for the United States as a whole.

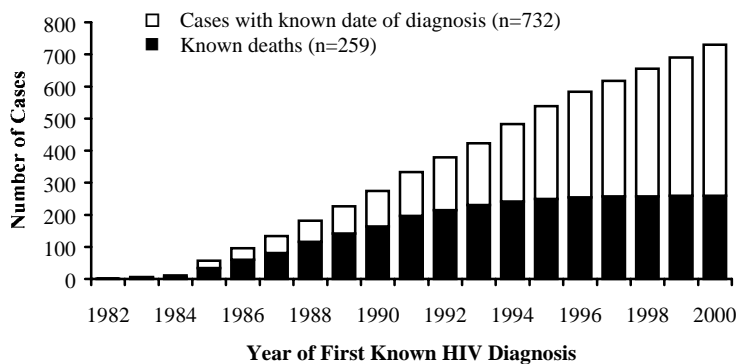
Table 3. HIV Cases Diagnosed by Year and Population from 1996-2000, Alaska

Year	Alaska AIDS Cases	HIV Cases	Alaska Population*
1996	51	45	605,212
1997	36	34	609,655
1998	27	38	617,082
1999	6	35	622,000
2000	16	40	626,932
Total	136	192	

*Population figures are from the Alaska Department of Labor and Workforce Development (1996-1999) and the 2000 Census

Figure 1. Cumulative HIV Cases and Known Deaths by Year of First Known HIV Diagnosis through December 31, 2000, Alaska N=781

(date of diagnosis is unknown for 49 cases and 4 deaths)



Age

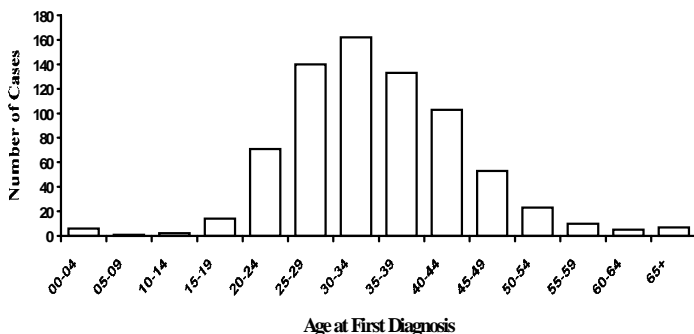
(Table 4, Figure 2)

A total of 437 (56%) of HIV cases reported in Alaska were first diagnosed in individuals between the ages of 25 and 39 years. Unlike the situation in some other areas of the U.S., HIV cases reported among young people in Alaska are relatively few. Seventy-one HIV cases (9% of cumulative cases) were reported among persons aged 20 to 24 years at first known HIV diagnosis, and 23 cases (3% of cumulative cases) among persons younger than 20 years at first known HIV diagnosis. No cases of HIV in persons younger than 18 years at first known diagnosis were reported since 1996.

Table 4. Cumulative HIV Cases (with and without AIDS) by Age at First Known HIV Diagnosis through December 31, 2000, Alaska N=781

Age Group	HIV Diagnosis
00-04	6 (1%)
05-09	1 (<1%)
10-14	2 (<1%)
15-19	14 (2%)
20-24	71 (9%)
25-29	140 (18%)
30-34	163 (21%)
35-39	134 (17%)
40-44	103 (13%)
45-49	53 (7%)
50-54	23 (3%)
55-59	10 (1%)
60-64	5 (1%)
65+	7 (1%)
Unknown	49 (6%)
Total	781 (100%)

Figure 2. Cumulative HIV Cases (with and without AIDS) by Age at First Known HIV Diagnosis through December 31, 2000, Alaska N=781 (age is unknown for 49 cases)



Gender

Female - Of 781 cumulative Alaska HIV cases, 134 cases (17%) were in females. The number and proportion of HIV cases among females in Alaska has increased in recent years, although it remains considerably smaller than that among males. This is similar to the national trend.

Male - Of 781 cumulative Alaska HIV cases, 647 cases (83%) were in males.

Exposure

(Figures 3-5, Table 5)

HIV exposure is categorized according to specific national definitions in a hierarchy established by the Centers for Disease Control and Prevention (CDC). Each HIV or AIDS case is counted only once. Individuals who have more than one mode of exposure are counted in only one exposure category determined by the CDC hierarchy, except that men who report both sexual contact with other men and injection drug use make up a separate CDC exposure category. CDC exposure category titles are straightforward, with two exceptions:

Heterosexual contact cases include only those reporting heterosexual contact specifically with a person with, or at increased risk for, HIV infection (for example, an injection drug user).

Other (no risk reported or identified) cases are in individuals with no reported history of exposure to HIV through any of the routes listed in the hierarchy of exposure categories. These cases also include:

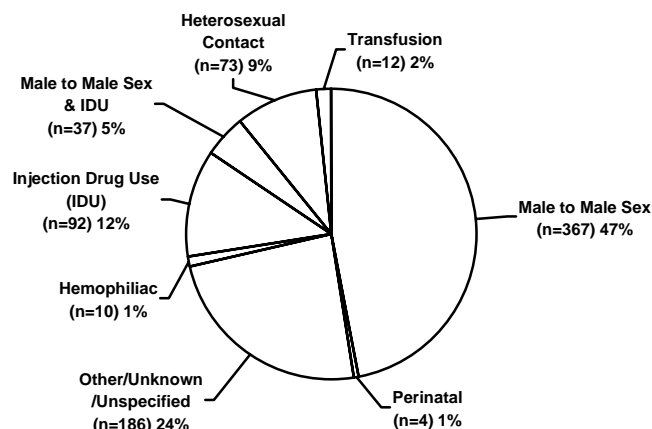
- persons who are currently under investigation by the health department;
- persons whose exposure history is incomplete because they died, declined to be interviewed, or were lost to follow up; and
- persons who were interviewed or for whom other follow up information was available and no (defined) exposure mode was identified.

Figure 3 presents cumulative HIV cases by exposure category. Of the 781 cumulative HIV cases reported in Alaska, 367 (47%) were among individuals whose exposure was male-male sex, 92 (12%) injection drug use, and 37 (5%) combined male-male sex and injection drug use exposures. (The proportion of cases related to male-male sex therefore totals 52%, while the number related to injection drug use totals 17%, when the combined exposure category is added to the individual exposure categories.) The number of cases with heterosexual exposure was 73 (9%) in Alaska.

HIV infection due to perinatal exposure is uncommon in Alaska. Four (4) cumulative HIV cases were reported through December 31, 2000, with no reported cases diagnosed after 1996. None of the 12 cumulative reported cases of HIV infection with exposure related to transfusion/transplant was diagnosed after 1990, and none of the 10 cumulative cases with exposure related to hemophilia was diagnosed after 1996.

Those cases where exposure was classified as “Other/Unknown/Unspecified” (186 Alaska cases or 24% of the total) may be reclassified to other exposure categories in the future as more information becomes available on individual cases. The proportion of cases classified as “Other/Unknown/ Unspecified” decreased in 2000 compared to 1999 as more complete information was obtained on previously diagnosed cases reported when HIV first became a reportable condition in 1999. The Alaska experience is consistent with national trends.

Figure 3. Cumulative HIV Cases (with and without AIDS) by Exposure Category through December 31, 2000, Alaska N=781



HIV exposure differs by gender, as two exposure categories (male-male sex and male-male sex plus injection drug use) do not apply to cases in females. Exposure by gender is shown in Table 5 and Figures 4 and 5. Greatest exposure risks for the 647 male cases were male to male sex (367 cases or 57% of male cases), injection drug use (64 cases or 10% of male cases), or both male to male sex and injection drug use (37 cases or 6% of male cases). For the 134 female cases, greatest exposure risks were heterosexual contact to an individual at high risk for HIV (49 cases or 37% of female cases) and injection drug use (28 cases or 21% of female cases). Exposure risk was not identified in a relatively large proportion of cases (21% of cases in males and 39% of cases in females).

Table 5. Cumulative HIV Cases (with and without AIDS) by Gender and Exposure Category through December 31, 2000, Alaska N=781

Exposure Category	HIV Cases in Males		HIV Cases in Females		Total	
Male-Male Sex	367	(57%)	Risk Not Applicable		367	(47%)
Injection Drug Use (IDU)	64	(10%)	28	(21%)	92	(12%)
Male-Male Sex & IDU	37	(6%)	Risk Not Applicable		37	(5%)
Heterosexual contact to person with/at high risk for HIV infection	24	(4%)	49	(37%)	73	(9%)
Hemophilia	10	(2%)	0	(0%)	10	(1%)
Transfusion/Transplant	9	(1%)	3	(2%)	12	(2%)
Perinatal Transmission	2	(<1%)	2	(1%)	4	(1%)
Other/Unknown/Unspecified*	134	(21%)	52	(39%)	186	(24%)
Total	647	(100%)	134	(100%)	781	(100%)

* Cases classified as Other/Unknown/Unspecified are those with no reported history of HIV exposure through the other routes listed

Figure 4. Cumulative Male HIV Cases (with and without AIDS) by Exposure Category through December 31, 2000, Alaska N=647

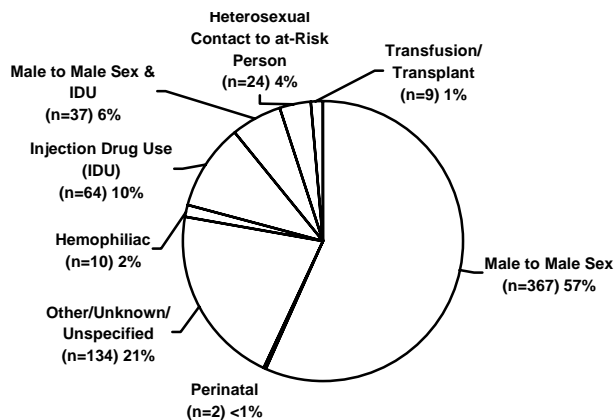
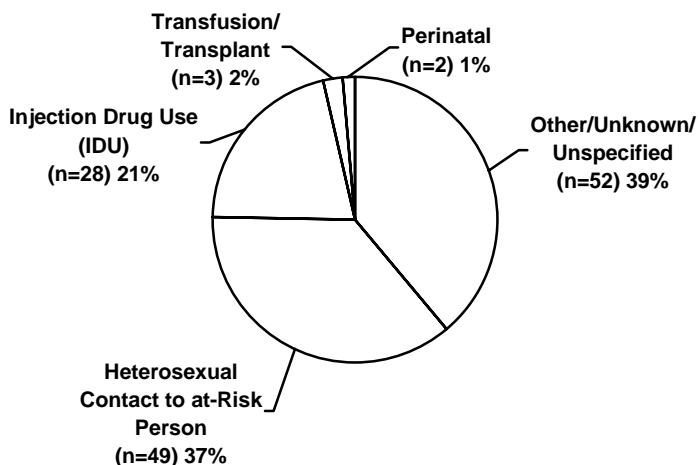


Figure 5. Cumulative Female HIV Cases (with and without AIDS) by Exposure Category through December 31, 2000, Alaska N=134



Race/Ethnicity
(Tables 6-8 and Figures 6-12)

HIV affects individuals in all racial and ethnic groups in Alaska. Although individuals are not at risk of HIV infection due to their race/ethnicity, it is sometimes considered an indicator of other social factors that may influence risk of exposure to HIV.

A validation study conducted in Alaska in 1992 found no misclassification of Alaska Native cases resulting in under-representation of HIV in Alaska Natives, although studies in some other areas of the U.S. did document misclassification in their service areas.

Data on all cumulative HIV cases by race/ethnicity are presented in Table 6. Alaska population estimates by race/ethnicity for 1999 are presented for comparison. Please note that the HIV case data classify individuals of Hispanic ethnicity as a separate category while the population data include individuals of Hispanic ethnicity within the other (race) categories. Population estimates for 1999 were used below because 2000 census data were not yet available for all categories presented.

Figure 6. Cumulative HIV Cases (with and without AIDS) by Race/Ethnicity through December 31, 2000, Alaska N=781

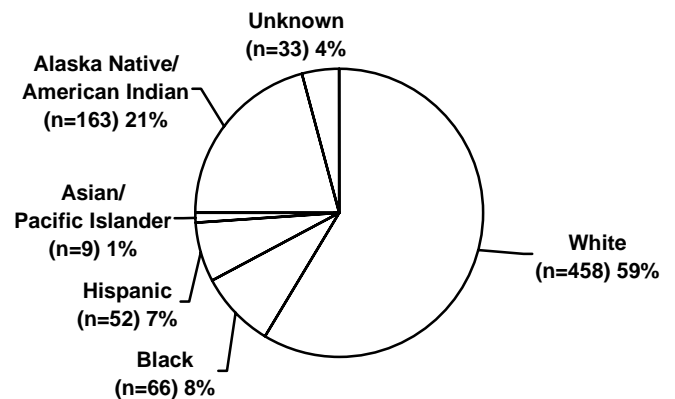


Table 6. Cumulative HIV Cases (with and without AIDS) Reported in Alaska through December 31, 2000 Compared to Alaska Population, by Race/Ethnicity

Race/Ethnicity	HIV Cases		1999 Population Estimate**	
White	458	(59%)	458,662	(74%)
Alaska Native/American Indian	163	(21%)	104,745	(17%)
Black	66	(8%)	27,627	(4%)
Asian/Pacific Islander	9	(1%)	30,976	(5%)
Hispanic Ethnicity	52	(7%)	(29,544)*	(5%)*
Unknown/Other	33	(4%)	---	
Total	781	(100%)	622,000	(100%)

* Persons of Hispanic origin may be of any race and are included within the other categories in the population data

** Population data are from the Alaska Department of Labor and Workforce Development

The proportions of cumulative HIV cases by race/ethnicity differ by gender (Figures 7a and 8a). These differences are examined further in the section following Figures 7 and 8.

Figure 7a. Cumulative Male HIV Cases (with and without AIDS) by Race/Ethnicity through December 31, 2000, Alaska N=647

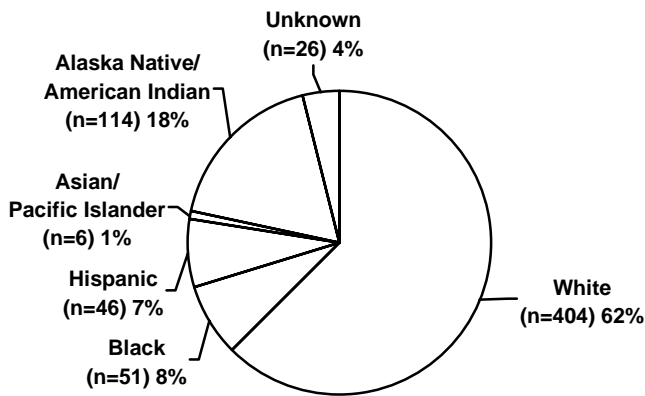


Figure 8a. Cumulative Female HIV Cases (with and without AIDS) by Race/Ethnicity through December 31, 2000, Alaska N=134

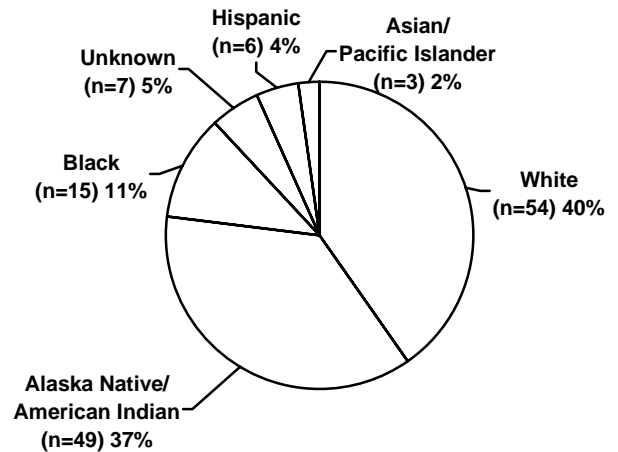


Figure 7b. Male Population, Alaska, by Race/Ethnicity, 1999 (n=323,686)

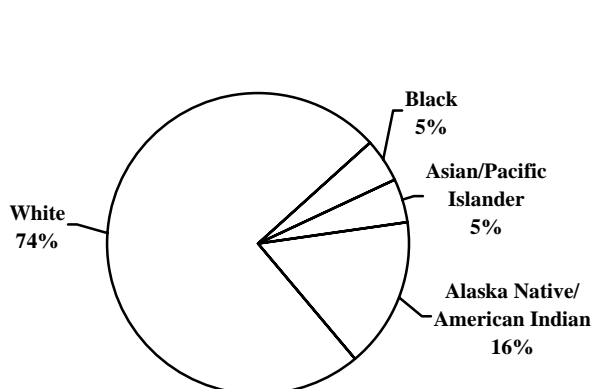
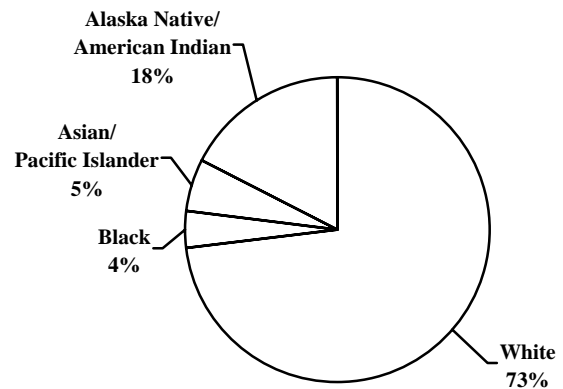


Figure 8b. Female Population, Alaska, by Race/Ethnicity, 1999 (n=298,314)



To further examine differences by gender and race/ethnicity, cumulative HIV cases in males and females aged 15 years and older were examined by race/ethnicity and compared to their respective proportions in the estimated 1999 Alaska population aged 15 years and older. This age group was selected because it included most HIV cases and also reduced the effect of variations among racial/ethnic

populations in the numbers of persons younger than 15 years. In these comparisons, Black, Hispanic, and Alaska Native/American Indian adult/adolescent males, and Alaska Native/American Indian and Black adult/adolescent females were over-represented in HIV cases as compared to their proportions in the Alaska population. (Tables 7-8 and Figures 11-12)

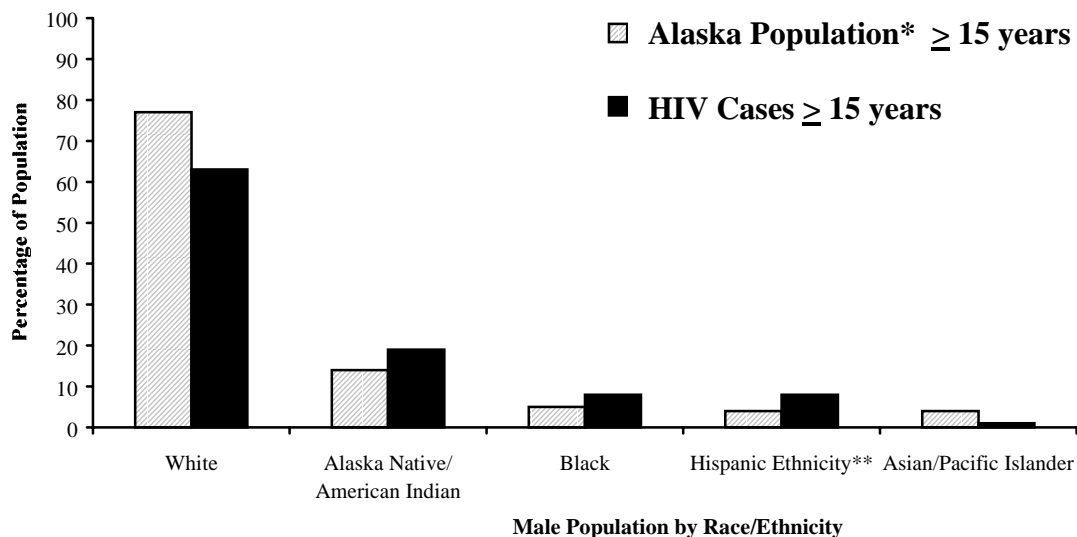
Table 7: HIV Cases First Diagnosed in Males ≥ 15 Years through December 31, 2000 Compared to Males ≥ 15 Years in the Alaska Population by Race/Ethnicity N=603

Race/Ethnicity	Estimated Males ≥ 15 Years of Age, 1999 Alaska Population*		HIV Cases First Diagnosed in Males ≥ 15 Years of Age	
White	184,341	(77%)	383	(64%)
Alaska Native/American Indian	33,609	(14%)	112	(19%)
Black	11,813	(5%)	47	(8%)
Hispanic Ethnicity**		** (4%)	46	(8%)
Asian/Pacific Islander	10,530	(4%)	5	(1%)
Unknown Race/Ethnicity	0	(0%)	10	(2%)
Total	240,293	(100%)	603	(100%)

* Population estimates from the Alaska Department of Labor & Workforce Development

** Males of Hispanic ethnicity ≥ 15 years of age (N = 10,348) are also included in the numbers and percentages shown for the racial categories

Figure 11: HIV Cases First Diagnosed in Males ≥ 15 Years through December 31, 2000 Compared to Males ≥ 15 Years in the Alaska Population by Race/Ethnicity N=603 (race/ethnicity is unknown for 10 cases)



* Population estimates are from the Alaska Department of Labor & Workforce Development

** Males of Hispanic ethnicity ≥ 15 years of age (N = 10,348) are also included in the population percentages shown for the racial categories

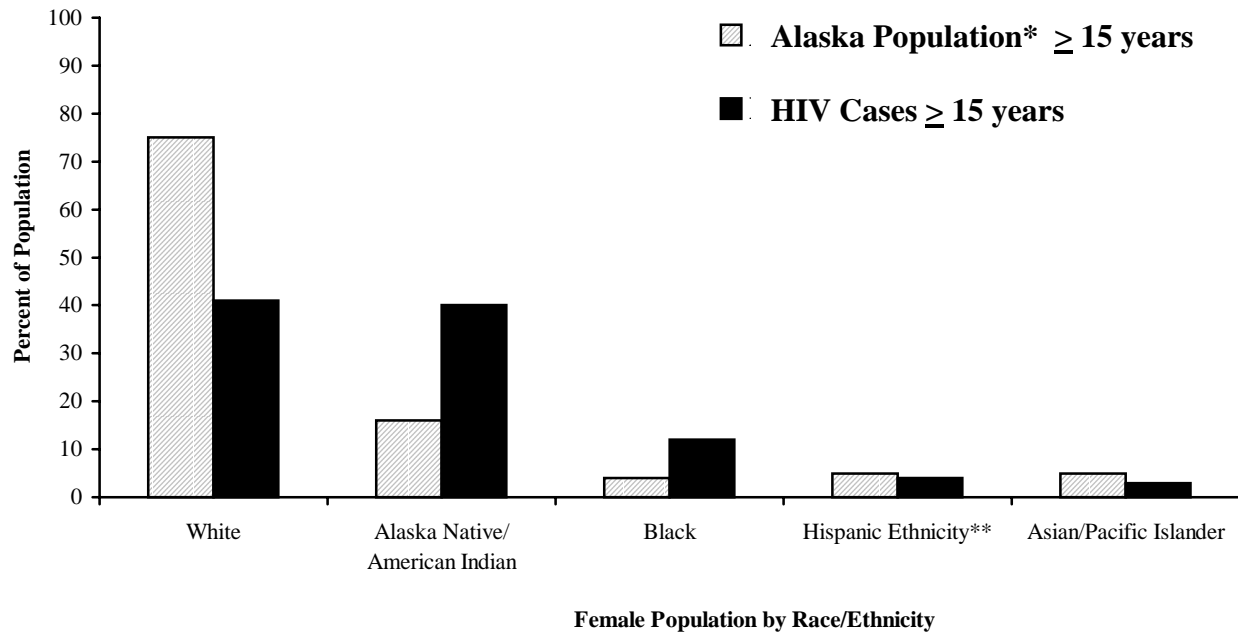
Table 8. HIV Cases First Diagnosed in Females ≥15 Years through December 31, 2000 Compared to Females ≥15 Years in the Alaska Population by Race/Ethnicity N= 120

Race/Ethnicity	Estimated Females ≥15 Years of Age, 1999 Alaska Population*		HIV Cases First Diagnosed in Females ≥15 Years of Age	
White	164,202	(75%)	49	(41%)
Alaska Native/American Indian	34,418	(16%)	48	(40%)
Black	8,486	(4%)	14	(12%)
Hispanic Ethnicity**	**	(5%)	5	(4%)
Asian/Pacific Islander	11,910	(5%)	3	(3%)
Unknown Race/Ethnicity	0	(0%)	1	(1%)
Total	219,016	(100%)	120	(100%)

* Population estimates from the Alaska Department of Labor & Workforce Development

** Females of Hispanic ethnicity ≥ 15 years of age (N = 9,858) are also included in the numbers and percentages shown for the racial categories

Figure 12: HIV Cases First Diagnosed in Females ≥15 Years through December 31, 2000 Compared to Females ≥15 Years in the Alaska Population by Race/Ethnicity N= 120 (race/ethnicity is unknown for 1 case)



* Population estimates from the Alaska Department of Labor & Workforce Development

** Females of Hispanic ethnicity ≥ 15 years of age (N = 9,858) are also included in the population percentages shown for the racial categories

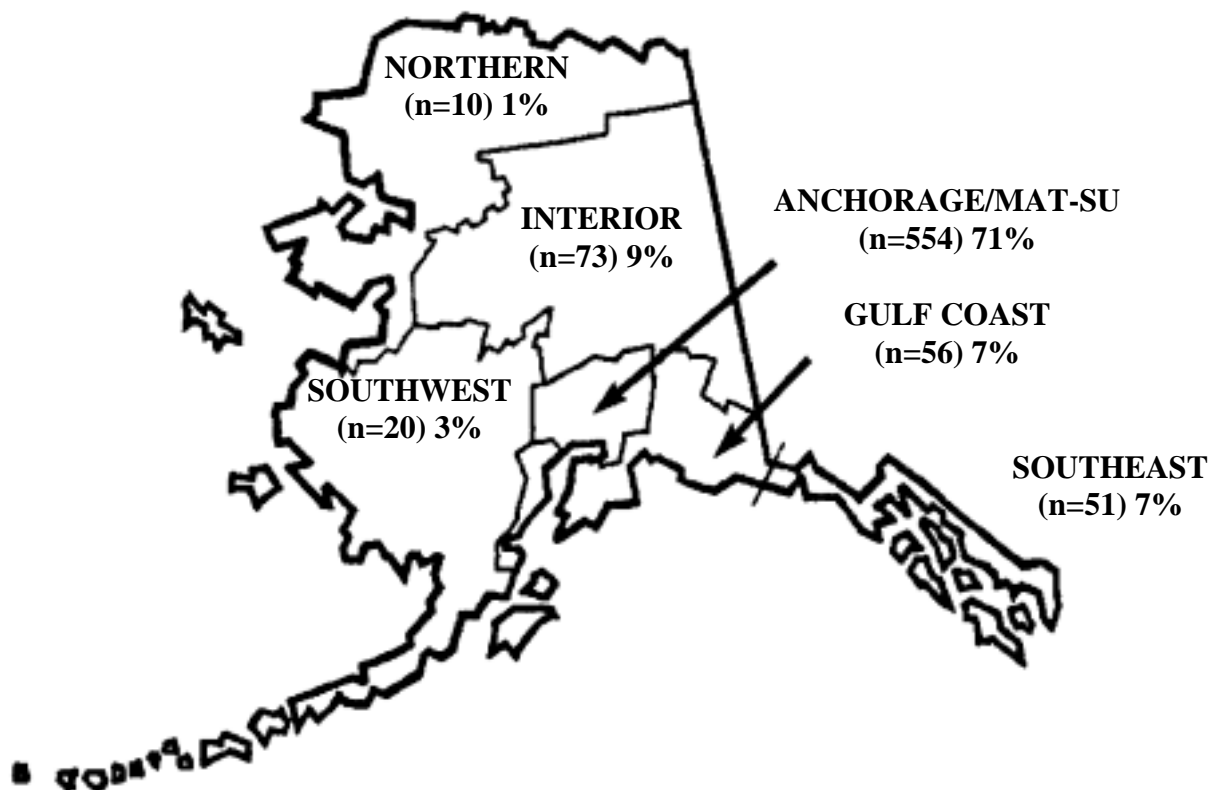
Geographic Region of Residence at First Known HIV Diagnosis

(Table 9, Figure 13)

Geographic region of residence at the time of first known HIV diagnosis is shown in Figure 13 for cumulative cases of HIV infection reported in Alaska through December 31, 2000. Residence is defined as region of HIV diagnosis when known, region of AIDS diagnosis when region of HIV diagnosis is unknown, and region of report when regions of HIV and AIDS diagnosis are unknown. The geographic areas identified represent the state's economic regions.

HIV cases have been reported from all regions of the state. At the time of first known HIV diagnosis, the largest proportion of cases resided in the most populous area of the state, with 71% (554) reporting residence in Anchorage/Mat Su. It should be noted that residence at first known HIV diagnosis does not necessarily reflect the area where infection occurred, where the infected individual currently resides, or where the individual currently seeks care.

Figure 13: Region of Residence at Time of First Known HIV Diagnosis, Cumulative Cases Reported through December 31, 2000, Alaska* N=781 (14 with out-of-state residence, 3 with unknown residence)



*Note: Region is defined as region of HIV diagnosis when known, region of AIDS diagnosis when region of HIV diagnosis is unknown, and region of report when regions of HIV and AIDS diagnosis are unknown

Table 9. Estimated Population by Region* and Number of Cases by Region of Residence at First Known HIV Diagnosis, Cumulative Cases Reported through December 31, 2000, Alaska (N=781)

Region	Population	%	HIV Cases (%)	
Southwest	38,443	(6%)	20	(3%)
Northern	23,597	(4%)	10	(1%)
Interior	98,299	(16%)	73	(9%)
Anchorage/Mat-Su	315,085	(51%)	554	(71%)
Gulf Coast	73,274	(12%)	56	(7%)
Southeast	73,302	(12%)	51	(7%)
Out of State			14	(2%)
Unknown			3	(<1%)
Total	622,000	(100%)	781	(100%)

*Population estimates by the Alaska Department of Labor and Workforce Development as of July 1, 1999

Mortality and HIV Infection

(Tables 10-12)

In the U.S., AIDS was ranked 11th among the leading causes of death in 1993, and ranked as the 8th leading cause of death in the U.S. in 1996. AIDS ranked as the leading cause of death for persons aged 25-44 years nationwide from 1992-1995 and was the second leading cause of death in that age group in 1996. Beginning in 1996, deaths due to AIDS declined both in the U.S. and in Alaska. This decline is attributed to the effect of new treatments for HIV infection. Among the 781 cumulative HIV cases reported in Alaska through December 31, 2000, 263 (34%) were known to have died.

Table 10. Summary of Deaths among Persons Reported with HIV in Alaska through December 31, 2000 N=781

Total HIV cases reported in Alaska	781
Reported cases known to have died	263
Deaths among cases with AIDS	254
Deaths among cases with HIV only	9

Table 11. HIV Cases and Known Deaths by Date of First Known Diagnosis through December 31, 2000

Year	Cases by Year of First Known HIV Diagnosis	Known Deaths Among Persons Diagnosed with HIV in that Year
1982	1	1
1983	5	2
1984	5	3
1985	46	28
1986	39	26
1987	38	21
1988	48	35
1989	44	26
1990	48	22
1991	59	33
1992	47	17
1993	44	16
1994	60	11
1995	56	8
1996	45	5
1997	34	3
1998	38	0
1999	35	2
2000	40	0
Unknown	49	4
Total	781	263

Data on deaths among individuals with HIV infection in Alaska are drawn primarily from death certificates recorded with the Alaska Section of Vital Statistics. All Alaska residents who die, regardless of where they die, should have an Alaska death certificate because the Alaska Section of Vital Statistics has reciprocal reporting arrangements with other states. If a person were reported with HIV while an Alaska resident and subsequently moved out of state (changed residency), their death may or may not be known to the Section of Epidemiology.

When HIV infection or AIDS is noted on the death certificate, HIV infection may or may not be the underlying cause of the person's death. In a small number of instances, a person diagnosed with HIV infection may die but HIV may be unrelated to the death and not be recorded on the death certificate.

To make case data as complete as possible, Section of Epidemiology personnel periodically review Alaska death certificates for: (1) deaths where HIV is the underlying cause of death, (2) deaths where there is any mention of HIV on the death certificate, (3) a death in any individual ever reported as an HIV case in Alaska, and (4) unusual illnesses highly associated with HIV infection. Additionally, another state or Alaska provider may advise the Section of Epidemiology that an HIV/AIDS case diagnosed in Alaska that subsequently moved elsewhere has died, or this information may be drawn from an obituary or other public notice published in Alaska. Data in Tables 2, 10, and 11 and Figure 1 reflect all reported cases of HIV known to have died of any cause.

Table 11 shows all known deaths due to any cause among all individuals reported with HIV infection in Alaska by year of first known HIV diagnosis. Deaths are shown in the year the case was first known to be diagnosed with HIV rather than in the year in which the death actually occurred, in order to reflect case mortality.

Table 12 shows the number of deaths (207) where HIV infection was the underlying cause of death for all individuals whose residence was Alaska at the time of death, by the year in which the death occurred. These data are drawn from death certificates recorded in the Alaska Section of Vital Statistics.

An individual with HIV infection who was an Alaska resident at the time of death, and who died of a cause unrelated to HIV (HIV was not the underlying cause of death), would be reflected in Table 11 but not in Table 12. An individual with HIV infection who was an Alaska resident at time of death, but who died prior to developing AIDS and prior to the start of HIV reporting in 1999, would be reflected in Table 12 but not in Table 11.

The guidelines for coding and classifying causes of death have changed (from ICD-9 to ICD-10). The new ICD-10 coding was introduced both nationally and in Alaska beginning in 1999. This change may result in discontinuities in cause-of-death trends, and mortality statistics from 1998 and earlier are not directly comparable to mortality statistics after 1998. Nationally, about 6% more deaths will be assigned to HIV in 1999 than in 1998 due solely to the change to ICD-10 coding.

Table 12. Alaska Resident Deaths with an Underlying Cause of HIV Infection* by Year of Death: 1982-2000, Section of Vital Statistics

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
1997	10
1998	6
1999	13**
2000	9**
Total	207**

*ICD-9 Codes 042-044; ICD-10 codes B20-B24

**Provisional data, Alaska Section of Vital Statistics

Section of Epidemiology personnel have checked all reported cases of HIV and AIDS against all Alaska death data through 1999 for all causes of death.

SPECIAL ANALYSES

Comparison of HIV Cases in Alaska Natives to HIV Cases in Persons of Other Races/Ethnicities

(Tables 13-15)

The HIV epidemic has disproportionately affected members of some racial and ethnic minority populations in the U.S. and in Alaska. To explore the situation in Alaska in more detail, all reported cases of HIV (with and without AIDS) among Alaska Natives/American Indians were compared to all reported cases of HIV among persons of all other races/ethnicities by gender, exposure, and age at diagnosis. For brevity, cases among Alaska Natives/American Indians are referenced in the following tables as Alaska Native.

Table 13. Cumulative HIV Cases (with and without AIDS) by Gender, Alaska Native and Race/Ethnicity Other than Alaska Native, through December 31, 2000 N=781

Gender	Alaska Native Cases	Cases Other than Alaska Native	Total
Male	114 (70%)	533 (86%)	647 (83%)
Female	49 (30%)	85 (14%)	134 (17%)
Total	163 (100%)	618 (100%)	781 (100%)

Table 14. Cumulative HIV Cases (with and without AIDS) by Exposure Category, Alaska Native and Race/Ethnicity Other than Alaska Native, through December 31, 2000 N=781

Exposure Category	Alaska Native	Other than Alaska Native
Male-Male Sex	63 (39%)	304 (49%)
Injection Drug Use	27 (17%)	65 (11%)
Male-Male Sex plus Injection Drug Use	7 (4%)	30 (5%)
Heterosexual Contact to Person with/ at High Risk For HIV Infection	24 (15%)	49 (8%)
Hemophilia	0	10 (2%)
Transfusion/Transplant	0	12 (2%)
Perinatal Transmission	1 (1%)	3 (<1%)
Other/Unknown/Unspecified	41 (25%)	145 (23%)
Total	163 (100%)	618 (100%)

Table 15. Cumulative HIV Cases (with and without AIDS) by Age at Diagnosis, Alaska Native and Race/Ethnicity Other than Alaska Native, through December 31, 2000 N=781

Age	Alaska Native		Other than Alaska Native	
0-4	2	(1%)	4	(1%)
5-9	0	(0%)	1	(0%)
10-14	0	(0%)	2	(<1%)
15-19	6	(4%)	8	(1%)
20-24	15	(9%)	56	(9%)
25-29	30	(18%)	110	(18%)
30-34	37	(23%)	126	(20%)
35-39	35	(21%)	99	(16%)
40-44	23	(14%)	80	(13%)
45-49	5	(3%)	48	(8%)
50-54	4	(2%)	19	(3%)
55-59	2	(1%)	8	(1%)
60-64	1	(1%)	4	(1%)
65+	2	(1%)	5	(1%)
Unknown	1	(1%)	48	(8%)
Total	163	(100%)	618	(100%)

Major differences observed between cases in Alaska Natives/American Indians and those of race/ethnicity other than Alaska Native/American Indian include:

- the proportion of HIV cases in females is greater, and therefore the proportion in males is less, in Alaska Native/American Indian cases than in cases of other ethnicities;
- no exposures related to hemophilia or transfusion were reported in Alaska Native/American Indian cases;
- the proportion of cases with exposure related to male-to-male sex is less in Alaska Native/American Indian cases than in cases of other ethnicities;
- the proportion of cases with exposures related to injection drug use or heterosexual contact with a person with/at risk for HIV is greater in Alaska Native/American Indian cases than in cases of other ethnicities; and
- the proportion of cases aged 15-19 years and 30-39 years is greater in Alaska Native/American Indian cases than in cases of other ethnicities.

Comparison of HIV Cases Presumed Living to those Known to Have Died

(Tables 16-21)

In some analyses, all cases of HIV known to have died are excluded in order to characterize the epidemic among persons still in the population (potentially able to transmit infection and potentially needing care). Data on cases not known to have died are likely to reflect the current epidemic in Alaska more accurately than the cumulative data, but still imperfectly. As referenced in the Mortality section of this report, some individuals move out of state and die (or live) elsewhere. These individuals remain in the Alaska case count (since the reported information includes residence at diagnosis and cases are not “tracked”).

Data on all HIV cases reported in Alaska and not known to have died were analyzed and compared to data on those cases known to have died. For simplicity, cases not known to have died are referenced below as “presumed living.”

Table 16. HIV Cases by Gender, Cases Presumed Living and Cases Known to Have Died, through 12/31/00, Alaska N=781

Gender	Cases Presumed Living	Cases Known to Have Died	Total
Male	416 (80%)	231 (88%)	647 (83%)
Female	102 (20%)	32 (12%)	134 (17%)
Total	518 (100%)	263 (100%)	781 (100%)

Table 17. Male HIV Cases by Exposure Category, Cases Presumed Living and Cases Known to Have Died, through 12/31/00, Alaska N=647

Exposure Category	Cases Presumed Living		Cases Known to Have Died	
	Count	Percentage	Count	Percentage
Male-Male Sex	211	(51%)	156	(68%)
Injection Drug Use	50	(12%)	14	(6%)
Male-Male Sex plus Injection Drug Use	22	(5%)	15	(6%)
Heterosexual Contact to Person with/ at High Risk For HIV Infection	21	(5%)	3	(1%)
Hemophilia	4	(1%)	6	(3%)
Transfusion/Transplant	0	(0%)	9	(4%)
Perinatal Transmission	0	(0%)	2	(1%)
Other/Unknown/Unspecified	108	(26%)	26	(11%)
Total	416	(100%)	231	(100%)

Table 18. Female HIV Cases by Exposure Category, Cases Presumed Living and Cases Known to Have Died, through 12/31/00, Alaska N=134

Exposure Category	Cases Presumed Living		Cases Known to Have Died	
	Count	Percentage	Count	Percentage
Male-Male Sex	N/A		N/A	
Injection Drug Use	19	(19%)	9	(28%)
Male-Male Sex plus Injection Drug Use	N/A		N/A	
Heterosexual Contact to Person with/at High Risk For HIV Infection	36	(35%)	13	(41%)
Hemophilia	0	(0%)	0	(0%)
Transfusion/Transplant	0	(0%)	3	(9%)
Perinatal Transmission	1	(1%)	1	(3%)
Other/Unknown/Unspecified	46	(45%)	6	(19%)
Total	102	(100%)	32	(100%)

Table 19. Male HIV Cases by Race/Ethnicity, Cases Presumed Living and Cases Known to Have Died, through 12/31/00, Alaska N=647

Race/Ethnicity	Cases Presumed Living		Cases Known to Have Died	
	Count	Percentage	Count	Percentage
White	242	(58%)	162	(70%)
Alaska Native/American Indian	74	(18%)	40	(17%)
Black	36	(9%)	15	(6%)
Asian/Pacific Islander	5	(1%)	1	(<1%)
Hispanic Ethnicity	33	(8%)	13	(6%)
Unknown Race/Ethnicity	26	(6%)	0	(0%)
Total	416	(100%)	231	(100%)

Table 20. Female HIV Cases by Race/Ethnicity, Cases Presumed Living and Cases Known to Have Died, through 12/31/00, Alaska N=134

Race/Ethnicity	Cases Presumed Living		Cases Known to Have Died	
	Count	Percentage	Count	Percentage
White	40	(39%)	14	(44%)
Alaska Native/American Indian	39	(38%)	10	(31%)
Black	10	(10%)	5	(16%)
Asian/Pacific Islander	2	(2%)	1	(3%)
Hispanic Ethnicity	4	(4%)	2	(6%)
Unknown Race/Ethnicity	7	(7%)	0	(0%)
Total	102	(100%)	32	(100%)

Table 21. HIV Cases by Age at First Known HIV Diagnosis, Cases Presumed Living and Cases Known to Have Died, through 12/31/00, Alaska N=781

Age	Cases Presumed Living		Cases Known to Have Died	
0-4	2	(<1%)	4	(2%)
5-9	0	(0%)	1	(<1%)
10-14	2	(<1%)	0	(0%)
15-19	11	(2%)	3	(1%)
20-24	53	(10%)	18	(7%)
25-29	87	(17%)	53	(20%)
30-34	103	(20%)	60	(23%)
35-39	89	(17%)	45	(17%)
40-44	66	(13%)	37	(14%)
45-49	33	(6%)	20	(8%)
50-54	14	(3%)	9	(3%)
55-59	8	(2%)	2	(1%)
60-64	2	(<1%)	3	(1%)
65+	3	(1%)	4	(2%)
Unknown	45	(9%)	4	(2%)
Total	518	(100%)	263	(100%)

Major differences observed between cases presumed living and those known to have died include:

- the proportion of HIV cases in females is greater, and therefore the proportion in males is less, in cases presumed living than in cases known to have died;
- the proportion of cases of either gender with exposure related to transfusion is less in cases presumed living than in cases known to have died;
- among males, the proportion of cases with exposure related to male-to-male sex is less, and the proportions with injection drug use and heterosexual contact greater, in males presumed living than in males known to have died;
- among females, the proportion of cases with exposure related to heterosexual contact and injection drug use is less in females presumed living than in females known to have died, although the large proportion of other/unknown/unspecified exposures among presumed living cases may obscure some changes;
- among males, the proportion of cases in Blacks and Hispanics is greater, and the proportion of cases in Whites less, in cases presumed living than in cases known to have died; and
- among females, the proportion of cases in Alaska Natives is greater and the proportion in Whites and Blacks less, in cases presumed living than in cases known to have died.

Comparison of Recent to All Other HIV Cases (Tables 22-27)

An alternative way of characterizing the current epidemic is to look at recently diagnosed (and therefore likely more recently infected) HIV cases. All cases of HIV without AIDS first diagnosed in the past 5 years (from 1996-2000) were analyzed and compared to all other cases of HIV (with and without AIDS). Major differences follow. Cases diagnosed with HIV without AIDS from 1996-2000 are referenced below as “recent” cases.

Table 22. HIV Cases by Gender, Recent and All Other HIV/AIDS Cases through 12/31/00, Alaska N=781

Gender	Recent HIV Cases	All Other HIV/AIDS Cases	Total
Male	60 (66%)	587 (85%)	647 (83%)
Female	31 (34%)	103 (15%)	134 (17%)
Total	91 (100%)	690 (100%)	781 (100%)

Table 23. Male HIV Cases by Exposure Category, Recent HIV Cases and All Other HIV/AIDS Cases, through 12/31/00, Alaska N=647

Exposure Category	Recent HIV Cases	All Other HIV/AIDS Cases
Male-Male Sex	31 (52%)	336 (57%)
Injection Drug Use	6 (10%)	58 (10%)
Male-Male Sex plus Injection Drug Use	0 (0%)	37 (6%)
Heterosexual Contact to Person with/ at High Risk For HIV Infection	6 (10%)	18 (3%)
Hemophilia	0 (0%)	10 (2%)
Transfusion/ Transplant	0 (0%)	9 (2%)
Perinatal Transmission	0 (0%)	2 (<1%)
Other/Unknown/ Unspecified	17 (28%)	117 (20%)
Total	60 (100%)	587 (100%)

Table 24. Female HIV Cases by Exposure Category, Recent HIV Cases and All Other HIV/AIDS Cases, through 12/31/00, Alaska N=134

Exposure Category	Recent HIV Cases	All Other HIV/AIDS Cases
Male-Male Sex	N/A	N/A
Injection Drug Use	5 (16%)	23 (22%)
Male-Male Sex plus Injection Drug Use	N/A	N/A
Heterosexual Contact to Person with/at High Risk for HIV Infection	13 (42%)	36 (35%)
Hemophilia	0 (0%)	0 (0%)
Transfusion/Transplant	0 (0%)	3 (3%)
Perinatal Transmission	0 (0%)	2 (2%)
Other/Unknown/Unspecified	13 (42%)	39 (38%)
Total	31 (100%)	103 (100%)

Table 25. Male HIV Cases by Race/ Ethnicity, Recent HIV and All Other HIV/AIDS Cases, through 12/31/00, Alaska N=647

Race/Ethnicity	Recent HIV Cases	All Other HIV/AIDS Cases
White	30 (50%)	374 (64%)
Alaska Native/ American Indian	18 (30%)	96 (16%)
Black	6 (10%)	45 (8%)
Asian/Pacific Islander	1 (2%)	5 (1%)
Hispanic Ethnicity	1 (2%)	45 (8%)
Unknown Race/ Ethnicity	4 (7%)	22 (4%)
Total	60 (100%)	587 (100%)

Table 26. Female HIV Cases by Race/ Ethnicity, Recent HIV Cases and All Other HIV/AIDS Cases, through 12/31/00, Alaska N=134

Race/Ethnicity	Recent HIV Cases	All Other HIV/AIDS Cases
White	12 (39%)	42 (41%)
Alaska Native/ American Indian	15 (48%)	34 (33%)
Black	2 (6%)	13 (13%)
Asian/Pacific Islander	1 (3%)	2 (2%)
Hispanic Ethnicity	1 (3%)	5 (5%)
Unknown Race/ Ethnicity	0 (0%)	7 (7%)
Total	31 (100%)	103 (100%)

Table 27. HIV Cases by Age, Recent HIV and All Other HIV/AIDS Cases, through 12/31/00, Alaska N=781

Age	Recent HIV Cases	All Other HIV/AIDS Cases
0-4	0 (0%)	6 (1%)
5-9	0 (0%)	1 (<1%)
10-14	0 (0%)	2 (<1%)
15-19	3 (3%)	11 (2%)
20-24	10 (11%)	61 (9%)
25-29	7 (8%)	133 (19%)
30-34	19 (21%)	144 (21%)
35-39	17 (19%)	117 (17%)
40-44	20 (22%)	83 (12%)
45-49	7 (8%)	46 (7%)
50-54	6 (7%)	17 (2%)
55-59	0 (0%)	10 (1%)
60-64	1 (1%)	4 (1%)
65+	1 (1%)	6 (1%)
Unknown	0 (0%)	49 (7%)
Total	91 (100%)	690 (100%)

Major differences observed between recent HIV cases and all other HIV/AIDS cases include:

- the proportion of HIV cases in females is greater and therefore the proportion in males is less in recent than in all other HIV/AIDS cases;
- among cases of either gender, there were no recent cases related to transfusion, hemophilia, or perinatal transmission;
- among males, the proportion of cases with exposure related to heterosexual contact with a person with/at risk for HIV is greater, and the proportion related to male-to-male sex or combined male-to-male sex and injection drug use

less, in recent HIV than in all other HIV/AIDS cases;

- among females, the proportion of cases with exposure related to heterosexual contact with a person with/at risk for HIV is greater, and the proportion related to injection drug use less, in recent than in all other HIV/AIDS cases. Some differences may be obscured by the large proportion of recent cases in females with other/unknown/unspecified exposure;
- among males, the proportion of cases in Alaska Natives/American Indians is greater, and the proportion in Whites and Hispanics less, in recent HIV than in all other HIV/AIDS cases;
- among females, the proportion of HIV cases in Alaska Natives/American Indians is greater, and the proportion in Blacks less, in recent than in all other HIV/AIDS cases; and
- the proportion of cases aged 40-44 is greater and the proportion aged 25-29 less in recent HIV cases than in all other HIV/AIDS cases.

HIV and Other Conditions

Sexually Transmitted Diseases (STDs) and HIV Infection. Infectious syphilis is rare in Alaska, but gonorrhea is more common and chlamydia is the most frequently reported infectious disease in Alaska. Chlamydia and gonorrhea rates are highest in Alaska among younger persons (15-24). Acquisition of STD results from unprotected sex with an infected partner. Since unprotected sex is also a risk behavior for HIV, reported STD cases (chlamydia, gonorrhea, and syphilis) were matched against reported HIV cases to examine the degree of overlap.

All cases of gonorrhea (7,966) reported in Alaska from January 1, 1989 through December 31, 2000 and chlamydia (9,323) reported from January 1, 1996 through December 31, 2000 were matched against all cases of HIV infection ever reported (781 cases reported through December 31, 2000). Twenty three (23) individuals reported with HIV were ever reported with chlamydia or gonorrhea from 1/1/89 through 12/31/2000. Only 7 of the 23 individuals had a case of STD reported after their HIV diagnoses.

Fewer than 1% of persons reported with chlamydia or gonorrhea were ever reported with HIV, indicating these STD are not necessarily good predictors of HIV infection in Alaska.

Nationally, syphilis infection has been more closely associated with HIV infection than has infection with

chlamydia or gonorrhea. All cases of syphilis (262, all stages of disease) reported in Alaska since 1/1/89 were matched against all cases of HIV reported through December 31, 2000. No individuals ever reported with HIV infection were reported with primary or secondary (infectious) syphilis. Five (5) individuals reported with HIV were reported with early latent, latent, or neurosyphilis. Careful follow up after treatment for syphilis is necessary in HIV infected patients.

Hepatitis C and HIV Infection. Recent cases of hepatitis C (HCV) infection in the U.S. are increasingly related to injection drug use, also a risk factor for HIV infection. All reported cases of hepatitis C (3,889) in Alaska were matched to all reported HIV cases (781) through December 31, 2000. Seventy-four (74) individuals were reported with hepatitis C and also with HIV (9% of 781 persons ever reported with HIV infection were also reported with HCV infection; 2% of 3,889 persons ever reported with HCV infection were also reported with HIV infection). HIV infected individuals with a history of injection drug use should be offered testing for HCV.

Tuberculosis and HIV Infection. HIV infection in persons with tuberculosis has been uncommon in Alaska. Of the 630 cases of active TB reported from 1993 through 2000, nine (9 or 1.4%) were also infected with HIV.

Co-infection with HIV may affect TB treatment, and all active TB cases between the ages of 25-44 years and/or with HIV risk factors should be tested for HIV infection. The State Tuberculosis Control Program documented that HIV testing was offered to 26 of 34 (76%) active cases of TB aged 25-44 years in 2000. Two (9.1%) of the 22 individuals accepting HIV testing and for whom results were available were HIV infected.

Partner Notification Activities

(Tables 28-31, Figures 14-15)

Partner notification is a voluntary service, conducted in cooperation with the HIV infected person, to confidentially advise his or her sexual and injecting partners of their exposure to HIV and offer them appropriate services.

In a low prevalence area such as Alaska, partner notification is the single most effective way to reach individuals at highest risk of HIV exposure and infection. Partner notification services offer voluntary

risk reduction information, provide HIV counseling and testing at the time of notification, return to patients with test results, and offer assistance to help infected individuals to access medical and other services. These activities may involve multiple interactions over an extended period of time, depending on the unique circumstances in each case.

Voluntary, confidential partner notification services are available in Alaska through public health personnel. Assistance with this service is available through the State HIV/STD Program in the Section of Epidemiology (907-269-8000).

Appropriately conducted partner notification services:

- benefit patients, providers, exposed persons, and the community;
- help many people learn their HIV status much earlier than would otherwise be the case;
- advise people how to reduce risk behavior;
- assist infected persons to enter medical care and to access other services to reduce risk behavior

Once in medical care, infected individuals and their providers can identify medical regimens to help patients:

- lower viral load;
- maintain health; and
- potentially reduce infectiousness to others.

Providers can also help link patients to other services that will assist them to reduce behaviors potentially leading to further HIV transmission.

Experience in Alaska and other areas has shown that partner notification services conducted by trained public health professionals are acceptable to most patients, partners, and providers.

Important characteristics of such services include:

- these services are voluntary;
- these services are confidential for patients and for partners;
- State Public Health records have protections that are not available to other entities;
- providers are protected from liability for disease reporting to the Division of Public Health; and
- the HIV/STD Program is accountable for these activities.

Ideally all newly identified infected persons would participate in partner notification activities with public health personnel. Partner notification services offer the single most effective means of focusing individualized services on those at greatest risk of

infection – those with known HIV exposure. HIV reporting has facilitated the ability of public health personnel to offer these services to providers and their patients. Participation in and results of 2000 partner notification (P/N) activities coordinated or conducted through the HIV/STD Program are described below:

Table 28. Partner Notification (P/N) Activities, 2000 N=77

Total HIV cases reported in 2000	77
Number of those 77 not known to have been offered P/N previously	53
Cases reported and receiving P/N prior to 2000 seeking additional P/N in 2000	4
Total potential P/N participants in 2000	57
Cases participating in P/N in 2000	43
Cases not participating in P/N in 2000	14
Reasons for nonparticipation in P/N:	
5 declined	
5 said they had or were notifying partners themselves	
1 had left Alaska	
3 could not be located	

Table 29. Characteristics of Cases (Original Patients) Participating and Not Participating in Partner Notification in 2000, Alaska N=57

Case Characteristics	Participated in P/N	Did Not Participate in P/N	Totals
Gender:			
Male	26	11	37
Female	17	3	20
Exposure Category:			
Male-Male Sex	10	8	18
Injection Drug Use	15	0	15
Heterosexual Contact to At-Risk Individual	15	0	15
Other/Unknown/Unspecified	3	6	9
Race/Ethnicity:			
White	18	10	28
Alaska Native/American Indian	23	2	25
Black	2	2	4
Asian/Pacific Islander	0	0	0
Hispanic Ethnicity	0	0	0

Forty-three (43) patients participating in partner notification activities named a total of 117 sexual and/or injecting contacts. Of these, 106 (91%) had sufficient information to try to locate them; 81 (69%) were located, notified of their exposure and counseled; and 61 (52% of partners named and 75% of partners located) accepted HIV testing in 2000 (Table 30). One named contact was newly identified with HIV infection, assisted to enter care, and also participated in partner notification services. Sixteen named contacts were identified as HIV infected and were aware of that fact by the time notification was carried out. Characteristics of contacts are presented in Table 31.

In general, participating patients and contacts:

- had not perceived themselves to be at risk for HIV;
- were often unemployed or with modest income;
- had partners in both urban and rural areas of Alaska as well as in other states;
- included a small number who reported crack use;
- needed assistance to access care and supportive services; and
- included some individuals who had difficulty maintaining safer behaviors.

Characteristics of the 81 exposed individuals who received risk reduction counseling and the 61 who also received HIV testing indicated they were unlikely to have been reached through any other HIV prevention services.

Partner notification is one of the highest priorities of the Division of Public Health. This essential service requires a range of professional resources and enlists the cooperation of both private and public health providers.

Table 30. Partner Notification Activity by Case, 2000

Case	Partners Named	*Contacts Initiated	**Contacts Notified	Contacts Tested During PN	Contacts Newly Positive	Contacts Previously Positive	***Contacts Negative
1	6	6	5	4	0	1	4
2	2	2	0	0	0	0	0
3	1	0	1	0	0	1	0
4	1	0	1	0	0	1	0
5	2	2	2	2	0	0	2
6	10	10	8	8	0	0	8
7	2	2	2	2	0	0	2
8	4	1	1	1	0	0	1
9	4	4	4	4	0	0	4
10	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0
12	2	2	1	1	0	0	1
13	4	3	3	2	0	0	3
14	1	1	1	0	0	1	0
15	2	0	0	0	0	0	0
16	1	1	1	0	0	1	0
17	1	1	1	1	0	0	1
18	6	6	5	3	0	1	4
19	1	0	1	0	0	1	0
20	1	1	1	1	1	0	0
21	0	0	0	0	0	0	0
22	2	2	2	1	0	0	2
23	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0
27	5	5	3	3	0	0	3
28	4	4	1	1	0	0	1
29	6	6	4	2	0	1	3
30	12	12	6	5	0	1	5
31	5	5	4	4	0	0	4
32	2	2	0	0	0	0	0
33	4	3	2	2	0	0	2
34	0	0	0	0	0	0	0
35	1	1	1	0	0	1	0
36	2	2	2	0	0	2	0
37	0	0	0	0	0	0	0
38	2	2	1	1	0	1	0
39	0	0	0	0	0	0	0
40	11	11	8	7	0	1	7
41	3	3	3	2	0	1	2
42	3	3	3	2	0	1	2
43	4	3	3	2	0	0	3
Totals	117	106	81	61	1	16	64

* Contacts Initiated are named partners where sufficient information to begin locating them has been received, a field record has been created, and attempts are made to locate this individual.

** Contacts Notified are those individuals who have been informed of their exposure.

*** Contacts Negative are determined by providing HIV testing, documented history of negative HIV test, or patient report of test results.

Table 31. Partner Notification Contacts by Race/Ethnicity and Age, 2000

Age	White	Alaska Native/ American Indian	Black	Asian/ Pacific Islander	Hispanic	Total
13-19						0
20-24	6	2				8
25-29	12	13	2		1	28
30-34	12	20	1		1	34
35-39	2	6		1		9
40-44						0
45-49	2					2
50+						0
Total	34	41	3	1	2	81

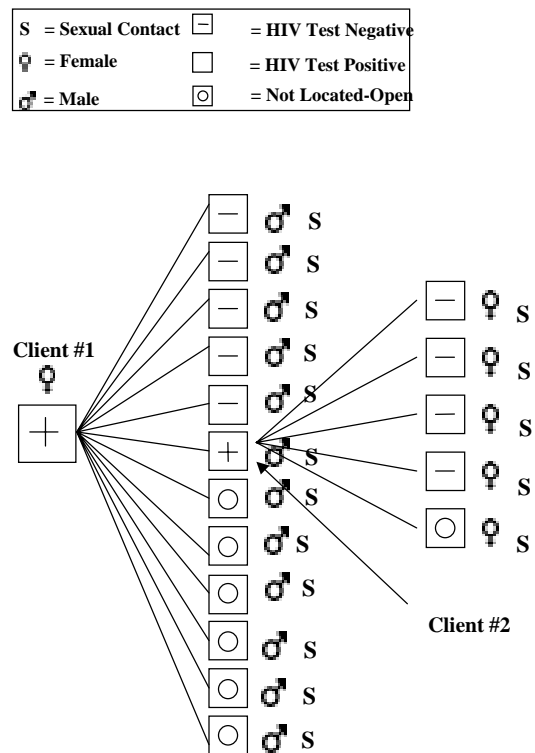
Case Investigation Examples

Case Investigation Example A (Figure 14)

Client #1 tested positive for HIV during routine prenatal screening. Client #1 named a total of 12 sexual partners within the previous five years. Six of the twelve were located, one of whom (Client #2) was previously known to be HIV infected. The partners involved were from many different areas of Alaska as well as from out of state.

When Client #2 (HIV positive) was originally provided partner notification assistance (before being named by Client #1), he did not name Client #1. Efforts to contact Client #2 to again provide HIV prevention counseling and offer additional partner notification assistance have been unsuccessful to date.

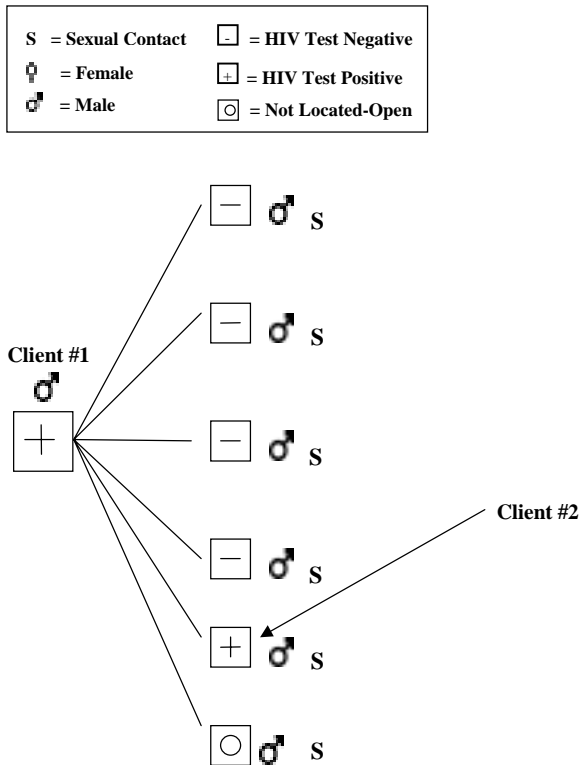
Figure 14. Case Investigation Example A



Case Investigation Example B (Figure 15)

Client #1 tested positive when seeking HIV counseling and testing services. Client #1 named six sexual partners. Five were located, one of whom (Client #2) was previously known to be HIV positive. Client #2 was located, provided HIV prevention counseling, and offered partner notification services. Client #2 reported no need for services at that time.

Figure 15. Case Investigation Example B



Conclusions

New HIV infections continue to occur in Alaska at stable and relatively low rates. Unlike some other areas of the U.S., relatively few HIV cases are reported among adolescents in Alaska. Death rates due to HIV infection have declined, primarily due to advances in medical technology and treatment, and the number of individuals living with HIV infection is increasing. A number of individuals diagnosed in 2000 were diagnosed late in the course of their infection, preventing early access to medical treatment and other services. Effective treatment can not only extend life and health but also reduce the probability of further HIV transmission.

It is often difficult to effectively target screening and intensive risk reduction activities due to the low prevalence of HIV infection in Alaska and the private nature of the sexual and injecting behaviors involved in transmission. All persons with symptoms suggestive of HIV/AIDS, risk factors associated with infection, those seeking HIV testing, women as a routine part of prenatal care, and adults/adolescents with active tuberculosis should be provided voluntary HIV screening. Timely reporting of HIV infection by medical providers and laboratories will stimulate public health provision of voluntary partner notification services to HIV infected individuals. These services focus screening and counseling on those exposed to and at greatest risk of HIV infection, leading to earlier diagnosis of previously undetected infection. Partner notification activities also assist infected persons to access medical evaluation, diagnosis and treatment, counseling to prevent further transmission, and support services. The Section of Epidemiology assists providers and patients to work with trained public health personnel in this process.

During the course of an infected individual's care, medical and social service providers should jointly develop and support strategies with infected patients to reduce possibilities for further transmission. Persons with HIV infection should be offered opportunities to participate in partner notification services with public health personnel as necessary throughout the course of their infection.

In a low HIV prevalence area such as Alaska, each act of potentially risky behavior (for example, unprotected sexual intercourse, multiple sex partners, sharing injection drug equipment) is less likely to result in HIV exposure than in areas with high HIV prevalence. Many community institutions (for example, health care services, churches, schools, social services, and social organizations) have important roles in HIV prevention through increasing awareness in and providing accurate information to those segments of the general public whom they serve. These activities help to build a generally informed community that accepts and supports early HIV diagnosis and participation in medical care and supportive services for those who are infected.

When resources are limited, the strategy most likely to prevent new infections and increase diagnosis of existing but unrecognized infections is to target those resources specifically dedicated to HIV prevention to individuals at highest risk of infection. Those at highest risk of infection are the sexual and needle sharing partners of HIV-infected individuals. Programs to increase awareness and reduce risk behavior can be effectively designed with and targeted to HIV positive persons, men who have sex with men, injection drug users, and other persons at increased risk.

The introduction of HIV infection reporting has provided more accurate data on the incidence and prevalence of HIV infection in Alaska. Over time, these data will provide information on the demographics of persons newly diagnosed with HIV infection to help evaluate the effectiveness of prevention and care efforts and to inform future service delivery.

Health care providers and laboratories are required under Alaska Administrative Code (7 AAC 27.005 and 27.007) to report diagnosed or suspected cases of HIV and AIDS to the Division of Public Health. Reporting by laboratories does not relieve health care providers of their obligation to report, or vice versa. Cases may be reported by calling the 24-hour Rapid Telephonic Reporting system at 1-800-478-1700 (561-4234 in Anchorage), by confidential fax to 1-907-561-4239, or by calling the HIV/STD Program at 907-269-8000.