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# HIV Infection in Alaska 1999

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## ABSTRACT

HIV reporting was successfully implemented in Alaska in 1999 with the cooperation of patients and providers. Alaska remains a low prevalence area for HIV infection; 29 individuals were reported as newly diagnosed with HIV or AIDS in 1999. Trends are consistent with the Interim Report on HIV Infection in Alaska published 12/7/99. As expected, the introduction of HIV reporting in February 1999 stimulated the reporting of a number of previously diagnosed cases -- 271 cases were reported in 1999.

Men who have sex with men remained at greatest risk of HIV infection in Alaska, representing both the largest number (330) and greatest proportion (46%) of the 717 reported total cases. An additional 35 cases (5%) were related to the combined risks of male-male sex and injection drug use. A small but increasing proportion of HIV cases occurred among women (111 cases or 15% of the total). Of the 111 cases reported in women, 39 (35%) were Alaska Native and 11 (10%) were Black. Only a small number of HIV cases have been reported in young persons -- 19 (3%) of 717 HIV cases occurred in persons less than 20 years old, and no persons less than 20 years old were reported with a new HIV infection in 1999.

Only 4 cases of perinatally acquired HIV infection have been reported in Alaska, none in 1999. Injection drug use remains an important risk factor; of 717 total HIV cases, 81 (11%) cases were injection drug users and an additional 35 (5%) cases were among persons engaging in male-male sex and injection drug use. Alaska data, like national data, reflect the effect of HIV treatment in delaying infected individuals' progression to AIDS.

Alaska data on partner notification illustrate the important role of public health professionals in conducting this service. Partner notification targets services to individuals at highest risk of infection, identifies previously undiagnosed persons with HIV, and identifies groups who, although engaging in risk behavior with infected individuals, don't perceive themselves to be at risk of infection. Of 78 contacts to 14 HIV infected persons participating in partner notification in 1999, 67 were located, counseled and tested for HIV. Five individuals were newly found to be HIV infected and assisted to enter care.

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## Introduction

AIDS became a reportable condition in Alaska in 1985. HIV infection became reportable in Alaska in February 1999. This report provides data on cases of HIV (with and without AIDS) reported Alaska through December 31, 1999. Because Alaska case numbers are relatively small, these data should be interpreted in the context of cumulative scientific knowledge about HIV/AIDS. Because of the long incubation period between the time of first infection with HIV and

the onset of conditions that meet the AIDS case definition, and more recently because of the effect of new treatments, AIDS case data do not necessarily reflect current trends in HIV infection. 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.

## Methods and Limitations in Interpreting Current Data

Reporting of HIV infection was successfully implemented in Alaska with the support and cooperation of physicians, other health care providers, and laboratories. HIV cases reported in 1999 include persons who were infected many years ago as well as persons recently infected or recently diagnosed for the first time. At this time, reporting is necessarily incomplete.

Additionally, people with HIV and AIDS undergo the same kinds of life events that other people do -- they move in 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.

## Comparison to Previously Reported Data

Persons with HIV infection may be classified in four ways:

- 1) Persons diagnosed with AIDS who named Alaska as their state of residence at the time of their first AIDS diagnosis (under the national case definition, these are "Alaska AIDS cases");
- 2) Persons diagnosed with HIV infection (without AIDS) who named Alaska as their state of residence at the time of their first HIV diagnosis (under the national case definition, these are "Alaska HIV cases");
- 3) Persons reported with AIDS in Alaska who were first diagnosed and reported with AIDS while they were residents of another state; and
- 4) Persons reported in Alaska with HIV (without AIDS) who were first diagnosed and reported with HIV while residents of another state.

Prior to the time HIV became a reportable condition in Alaska, only persons with AIDS were reported (categories 1 and 3, above), and Alaska data published in Section of Epidemiology Bulletins or by the Centers for Disease Control and Prevention (CDC) included only AIDS cases first diagnosed in Alaska (category 1, above). Since February 1999, with the introduction of

HIV reporting, all four (1-4) case categories described above are reportable in Alaska. Data on all four case categories are included in this document. Data in this report are, therefore, not all directly comparable to previously published data.

## Cumulative Reported HIV Cases

(through December 31, 1999)

From January 1, 1982 through December 31, 1999, a cumulative total of 717 cases of HIV infection were reported among individuals in Alaska.

**Table 1. Summary of Reported HIV Cases through 12/31/99**

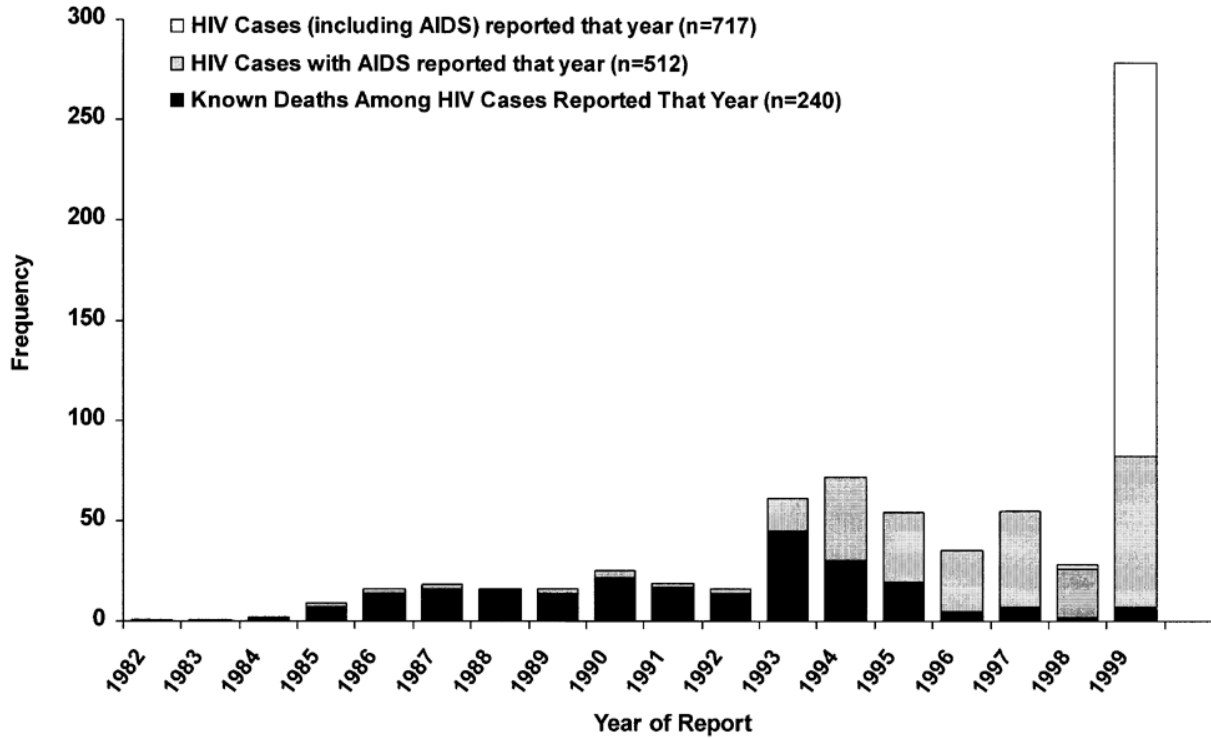
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Total HIV cases reported in Alaska	= 717
HIV with AIDS	= 512
HIV without AIDS	= 205
<hr/>	
Total AIDS cases reported in Alaska	= 512
Alaska residents at diagnosis	= 449
Not Alaska residents at diagnosis	= 63

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When HIV became a reportable condition, many previously diagnosed HIV cases were reported to the Section of Epidemiology. Figure 1 presents all reported HIV cases by date of report. (Note that other data displays present cases by date of diagnosis rather than by date of report.) Because of this influx of cases and the "older" nature of some cases, some data elements are incomplete for a number of cases.

**Figure 1. HIV and AIDS Cases and Known Deaths by Year of Report, Alaska (through December 31, 1999) N=717**



**Reported Alaska AIDS Cases**

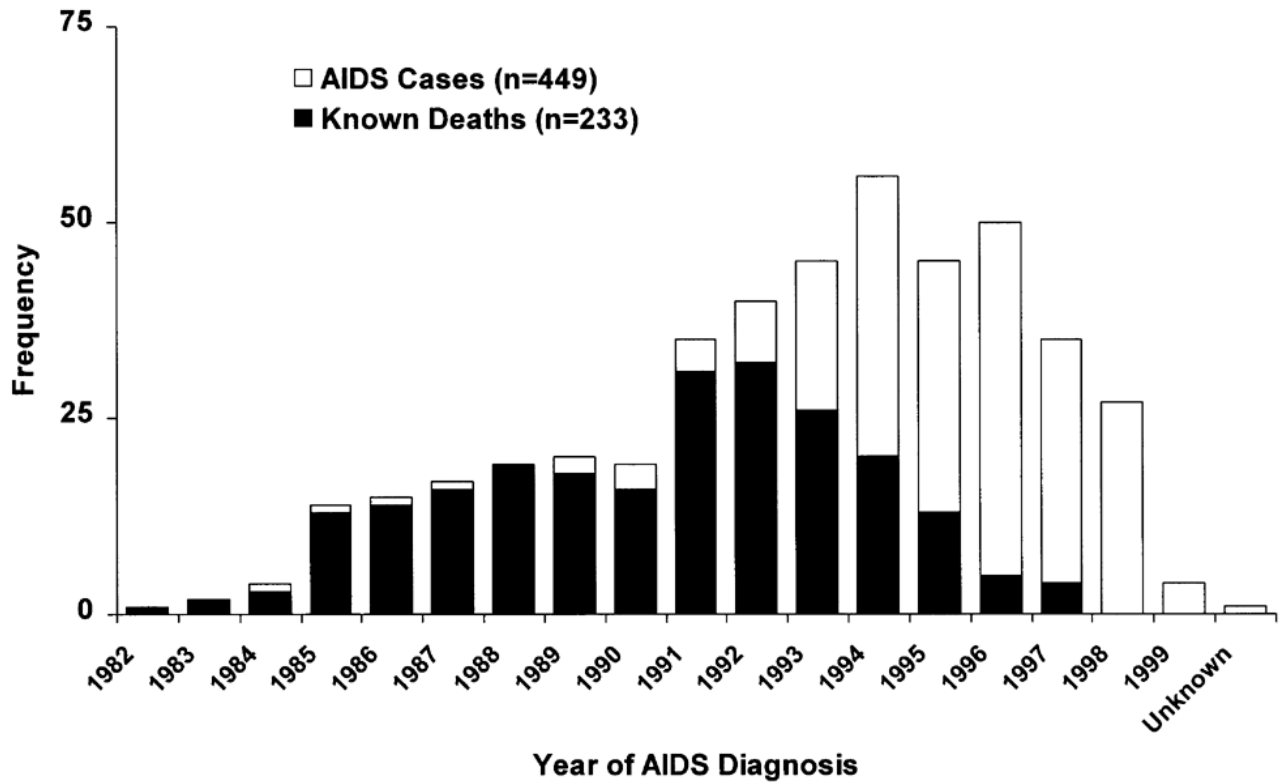
Table 2 and Figure 2 show the 449 AIDS cases first diagnosed in Alaska by year of diagnosis, as well as the 223 individuals known to have died of any cause. Deaths are shown in the year the case was first diagnosed. Data in Table 2 and Figure 2 are directly comparable to Alaska AIDS case data published in Alaska Section of Epidemiology Bulletins before December 1999 and in national data published by CDC. These data depict (1) the decline in deaths among individuals diagnosed with AIDS in recent years and (2) the decline in the number of new AIDS cases seen in Alaska since 1996. The decline in new cases of AIDS and in deaths is attributed primarily to the effects of new treatments for HIV infection.

**Table 2. Alaska State AIDS Cases and Known Deaths by Date of First AIDS Diagnosis (through December 31, 1999)**

Includes only cases known to be Alaska residents at the time of the first AIDS diagnosis.

Year	Cases by Year of First AIDS Diagnosis	Known Deaths Among Persons Diagnosed with AIDS in that Year
1982	1	1
1983	2	2
1984	4	3
1985	14	13
1986	15	14
1987	17	16
1988	19	19
1989	20	18
1990	19	16
1991	35	31
1992	40	32
1993	45	26
1994	56	20
1995	45	13
1996	50	5
1997	35	4
1998	27	0
1999	4	0
Unknown	1	0
<b>Total</b>	<b>449</b>	<b>223</b>

**Figure 2. Alaska AIDS Cases and Known Deaths by Year of AIDS Diagnosis**  
 (through December 31, 1999) N=449 (Alaska Residents at Time of First AIDS Diagnosis)



**Mortality and HIV Infection**

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. Since 1996, deaths due to AIDS have declined both in the U.S. and in Alaska. This decline is attributed to the effect of new treatments for HIV infection.

Among the 717 total HIV cases reported in Alaska through December 31, 1999, 240 are known to have died.

**Table 3. Summary of Deaths among Persons Reported with HIV in Alaska through December 31, 1999**

Total HIV cases reported in Alaska	=	717
Known deaths	=	240
Alaska residents at AIDS diagnosis	=	233
Not AK residents at AIDS diagnosis	=	4
HIV cases without AIDS	=	3

Data on deaths among individuals with HIV infection in Alaska are primarily drawn 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, as the Alaska Section of Vital Statistics has reciprocal reporting arrangements with other states.

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.

Section of Epidemiology personnel periodically review 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) death in any individual ever reported as an HIV case in Alaska, and (4) unusual illnesses highly associated with HIV infection.

Another state or an Alaska provider may advise the Section of Epidemiology that an Alaska AIDS case who no longer resides in Alaska has died, or this information may be drawn from an obituary or other public notice published in Alaska. Data in Tables 2 and 3 and Figure 2 reflect all persons known to have died.

Table 2 and Figure 2 show all known deaths due to any cause among individuals who were Alaska residents at the time of AIDS diagnosis by year of diagnosis. Deaths are shown in the year the person was first diagnosed with AIDS (rather than in the year in which the death actually occurred) in order to reflect case mortality.

Table 4 shows the number of deaths where HIV infection was the underlying cause of death for 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. (These individuals may or may not have been Alaska residents at the time they were first diagnosed with HIV or AIDS.)

Section of Epidemiology personnel have checked all reported cases of HIV and AIDS against all Alaska death data through 1998 for all causes of death. Six (6) of 717 individuals with HIV or AIDS were found to have died where HIV was not the underlying cause of death. One of these six cases is under further review to determine whether a coding error was involved.

**Table 4. Alaska Resident Deaths with an Underlying Cause of HIV Infection\* by Year of Death: 1982-1999, Section of Vital Statistics.**

HIV/AIDS Deaths	
Year	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**

\*ICD Codes 042-044

\*\*Provisional data

**Gender**

Female Of 717 Alaska HIV cases, 111 cases (15%) were females. The number of cases of HIV 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 717 Alaska HIV cases, 605 cases (84%) were males.

In one case, sex was not reported.

### Mode of Exposure to HIV

(Figures 3-5, Table 5)

Exposure categories follow specific national definitions in a hierarchy established by CDC. For surveillance purposes, HIV and AIDS cases are counted only once. Individuals who have more than one mode of exposure are counted in only one exposure category according to the CDC hierarchy, except that men who report sexual contact with other men and injection drug use make up a separate exposure category. Exposure categories are clearly described by their titles with two exceptions (CDC definitions):

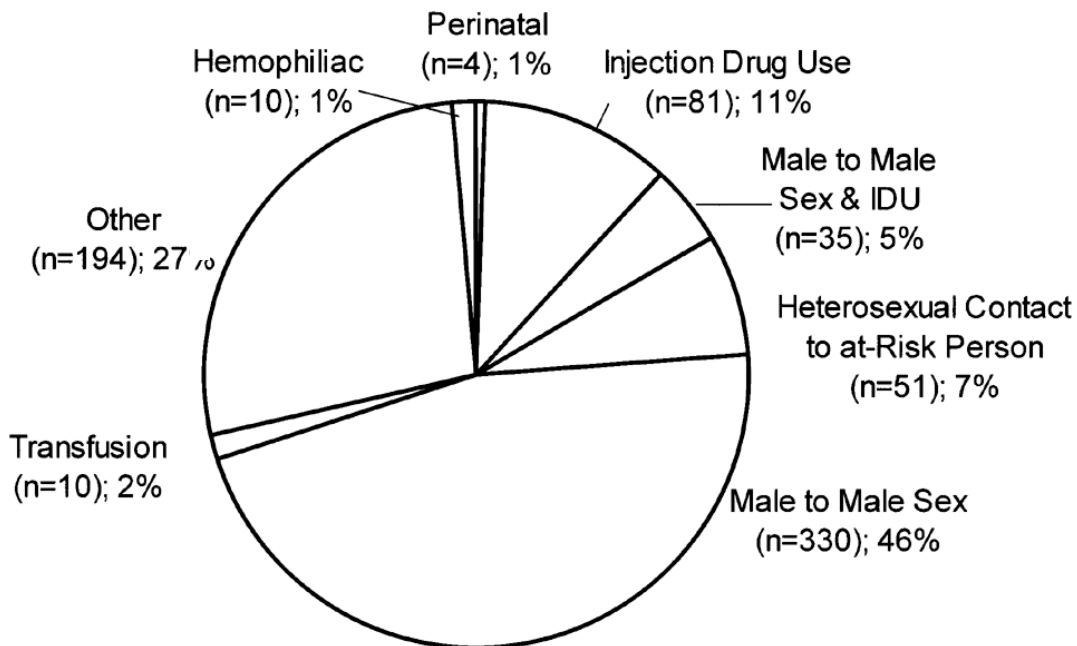
*Heterosexual contact* cases include only those reporting specific heterosexual contact with a person with, or at increased risk for, HIV infection (for example, an injection drug user).

*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 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 all HIV cases by exposure category. Of the 717 HIV cases reported in Alaska, 446 (62%) were among individuals whose exposure was male-male sex (330 cases), injection drug use (81), or both exposures (35). These three exposure categories are also the most prominent in national trends. Cases currently in the “Other” category (194 Alaska cases or 27% of the total) may be reclassified to other exposure categories as more case information becomes available. The proportion of cases in this last category is increasing nationally and in Alaska, but is also due, in part, in Alaska to the influx of newly reported HIV cases.

**Figure 3. All HIV Cases (including AIDS) by Exposure, Alaska (through December 31, 1999) N=717**

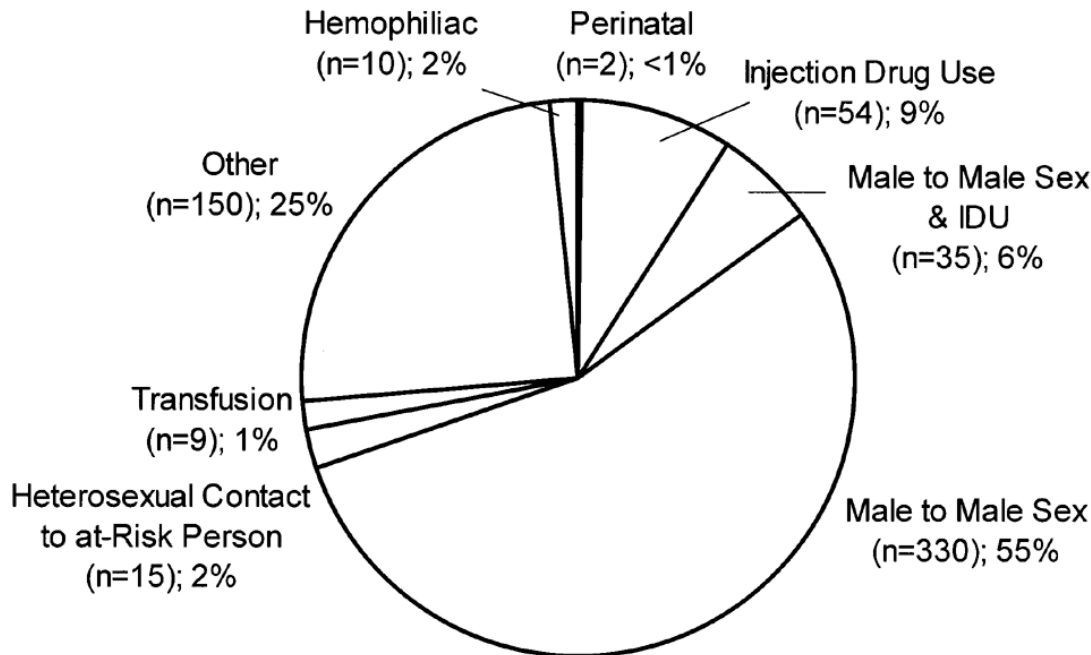




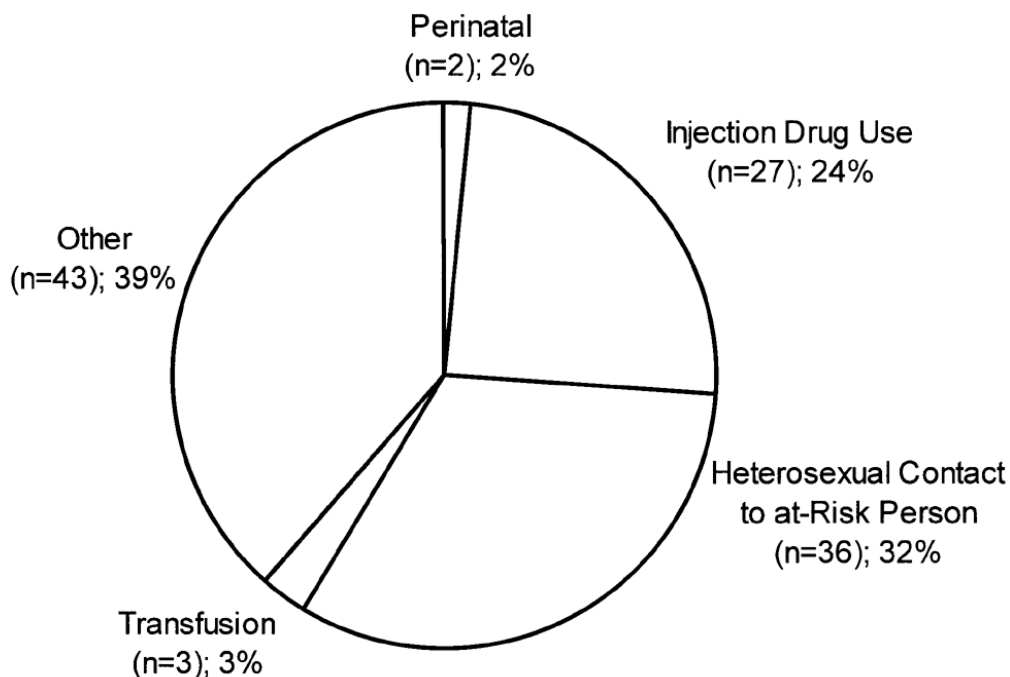
Exposure by gender is shown in Table 5 and Figures 4 and 5. Greatest exposure risks for the 605 male cases were male to male sex (330 cases), injection drug use (54), or both male to male sex

and injection drug use (35). For the 111 female cases, greatest exposure risks were heterosexual contact to an individual at high risk for HIV (36 cases) and injection drug use (27).

**Figure 4. Male HIV Cases (including AIDS) by Exposure, Alaska (through December 31, 1999) N=605**



**Figure 5. Female HIV Cases (including AIDS) by Exposure, Alaska (through December 31, 1999) N=111**



**Table 5. Alaska HIV Cases (including AIDS) by Gender and Exposure Category through December 31, 1999)**

Exposure Category	Male		Female		Unknown		Total	
	Cases	%	Cases	%	Cases	%	Cases	%
Male to Male Sex	330	55	0	0	0	0	330	46
Male to Male Sex & Injection Drug Use	35	6	0	0	0	0	35	5
Injection Drug Use	54	9	27	24	0	0	81	11
Heterosexual Contact to Person with/at Increased Risk for HIV	15	2	36	32	0	0	51	7
Transfusion	9	1	3	3	0	0	12	2
Hemophiliac	10	2	0	0	0	0	10	1
Perinatal	2	0	2	2	0	0	4	1
Other/Not Identified	150	25	43	39	1	100	194	27
Total	605	100	111	100	1	100	717	100

### Race/Ethnicity

(Table 6 and Figures 6-8)

HIV affects individuals in all racial and ethnic groups in Alaska. Validation studies in Alaska show that misclassification of Alaska Native cases has not been a problem here although it has been shown to be problem in some other areas of the U.S.

The Alaska Department of Labor estimates Alaska's 1998 population proportions by race. 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 1998 Hispanic population at 4.5% of the Alaskan total. (Table 6)

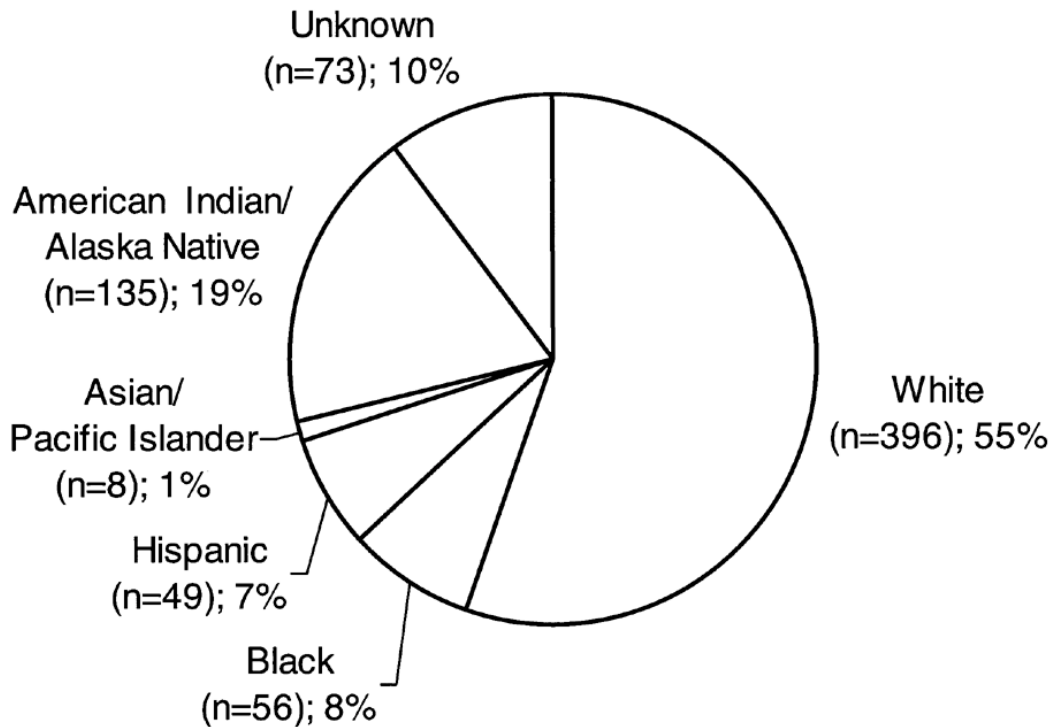
**Table 6. HIV Case Distribution (including AIDS) Compared to Estimated 1998 Alaska Population Overview (through December 31, 1999)**

Race/Ethnicity	Cases	(%) Cases	Estimated Population	(%) Population
American Indian/Alaska Native	135	<b>19</b>	104,085	<b>17</b>
Asian/Pacific Islander	8	<b>1</b>	30,200	<b>5</b>
Black	56	<b>8</b>	27,652	<b>4</b>
Hispanic	49	<b>7</b>	*	<b>5</b>
White	396	<b>55</b>	459,463	<b>74</b>
Unknown	73	<b>10</b>	---	--
Total	717	<b>100</b>	621,400	--

\*estimated Hispanic population = 28,889

Those of Hispanic ethnicity are included in the racial categories, above.

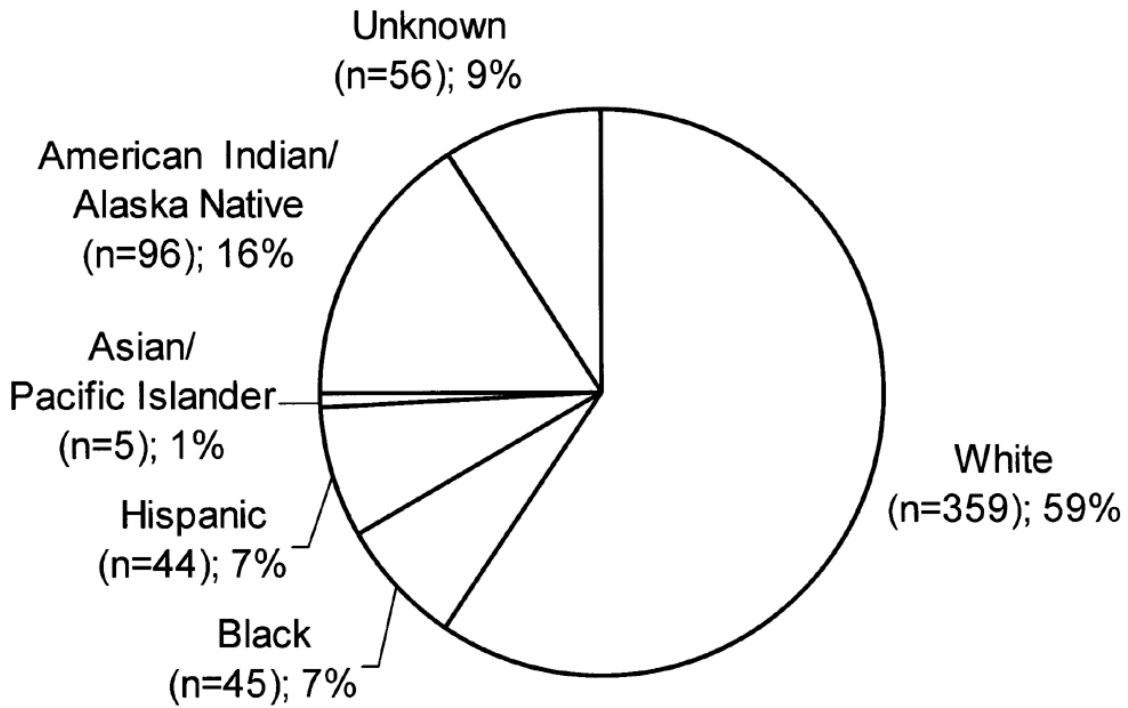
**Figure 6. All HIV Cases (including AIDS) by Race/Ethnicity, Alaska (through December 31, 1999) N=717**



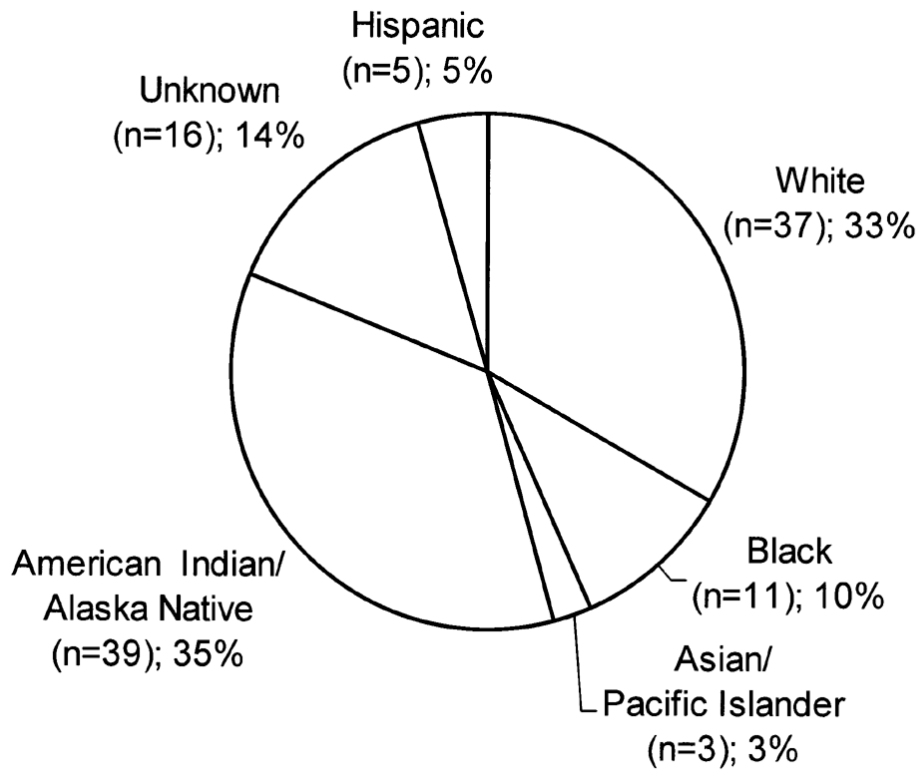
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Based upon these Alaska population estimates, Blacks and persons of Hispanic ethnicity are over-represented among total HIV cases, and this difference is statistically significant. Alaska Natives are slightly over-represented in Alaska cases of HIV, although this difference is not statistically significant. (Table 6; Figure 6) Among Alaska HIV cases in males, Blacks (8%) and Hispanics (7%) are over-represented. (Figure 7) Among females, American Indian/Alaska Natives (35%) and Blacks (10%) are over-represented relative to their percentages in the population. (Figure 8)

**Figure 7. Male HIV Cases (including AIDS) by Race/Ethnicity, Alaska (through December 31, 1999) N=605**



**Figure 8. Female HIV Cases (including AIDS) by Race/Ethnicity, Alaska (through December 31, 1999) N=111**



### Comparison of Cases among Alaska Natives and Persons of Other Races/Ethnicities

The HIV epidemic has disproportionately impacted members of some racial and ethnic minority populations in the U.S. To explore the situation in Alaska in more detail, cases of AIDS among Alaska Natives were compared to cases of AIDS among persons of all other races/ethnicities by gender, exposure, and age at diagnosis (Tables 7, 8, and 9). Data on cases of AIDS were used for these comparisons rather than data on all HIV cases due to the large proportion of HIV cases with incomplete information. Differences between the two populations in each of the tables primarily reflect the disproportionate impact of HIV on Alaska Native women.

**Table 7. AIDS Cases by Gender, Alaska Native and Race/Ethnicity Other than Alaska Native (through December 31, 1999)**

Gender	Other than Alaska Native	Alaska Native
Male	371 (89%)	73 (78%)
Female	47 (11%)	21 (22%)
Total	418 (100%)	94 (100%)

**Table 8. AIDS Cases by Exposure, Alaska Native and Race/Ethnicity Other than Alaska Native (through December 31, 1999)**

Exposure	Other than Alaska Native	Alaska Native
Perinatal	3 (1%)	1 (1%)
Heterosexual Contact to Individual at Risk	27 (6%)	8 (9%)
IDU	45 (11%)	14 (15%)
MSM/IDU	20 (5%)	6 (6%)
MSM	207 (50%)	43 (46%)
Transfusion	12 (2%)	0
Hemophilia	10 (2%)	0
Other	94 (22%)	22 (23%)
Total	418 (100%)	94 (100%)

**Table 9. AIDS Cases by Age, Alaska Native and Race/Ethnicity Other than Alaska Native (through December 31, 1999)**

Age	Other than Alaska Native	Alaska Native
0-4	4 (1%)	1 (1%)
5-9	0	0
10-14	1 (<1%)	0
15-19	2 (<1%)	2 (2%)
20-24	19 (5%)	5 (5%)
25-29	62 (15%)	16 (17%)
30-34	93 (22%)	22 (23%)
35-39	90 (22%)	22 (23%)
40-44	59 (14%)	13 (14%)
45-49	35 (8%)	5 (5%)
50-54	20 (5%)	2 (2%)
55-59	9 (2%)	1 (1%)
60-64	4 (1%)	1 (1%)
65+	4 (1%)	1 (1%)
Unknown	16 (4%)	3 (3%)
Total	418 (100%)	94 (100%)

### Age

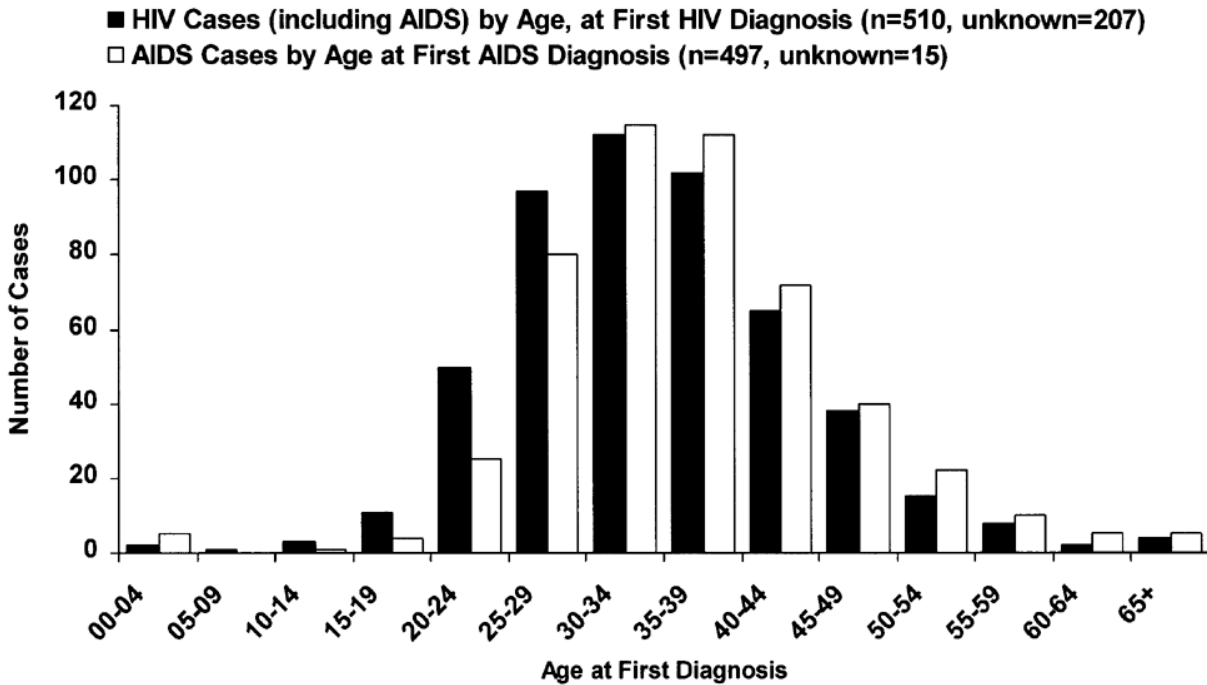
(Table 10, Figure 9)

The time from infection with HIV to development of AIDS may be quite prolonged. 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. Unlike the situation in some areas of the U.S., HIV cases reported among young people in Alaska are relatively few.

**Table 10. HIV and AIDS Cases by Age at Diagnosis, (through December 31, 1999), Alaska.**

<b>Age Group</b>	<b>HIV Diagnosis</b>	<b>AIDS Diagnosis</b>
00-04	2	5
05-09	1	0
10-14	3	1
15-19	12	4
20-24	53	25
25-29	99	80
30-34	110	115
35-39	96	112
40-44	63	72
45-49	36	40
50-54	16	22
55-59	7	10
60-64	2	5
65+	4	5
Unknown	207	15
<b>Total</b>	<b>717</b>	<b>512</b>

**Figure 9. HIV Cases and AIDS Cases by Age at Diagnosis, Alaska  
(through December 31, 1999) N=717**



## **Comparison of Cases Not Known to have Died with All Cases**

Some national analyses of HIV data exclude all cases known to have died in order to better characterize the epidemic among living persons still in the population. As discussed in the Mortality section of this report, using this approach in Alaska fails to consider the fact that some individuals move and die elsewhere but are unknown to the data system. Additionally, some individuals move, are living elsewhere, but are not reflected in a reduced case count (since individuals' physical locations after the time of case diagnosis are immaterial to case reporting). Such an analysis therefore can be expected to imperfectly reflect the current epidemic.

In order to examine whether cases not known to have died differed from all cumulative cases, data on all HIV cases reported in Alaska and not known to have died were analyzed and compared to the cumulative data presented in this report. The slight differences found did not significantly alter the epidemiologic trends presented in this report.

## **HIV and Other Conditions**

*Sexually Transmitted Diseases (STDs) and HIV Infection.* STDs are among the most frequently reported infectious diseases. Syphilis, gonorrhea, and chlamydia are reportable STDs in Alaska. Infectious syphilis is rare in Alaska, but chlamydia and gonorrhea are more common. Alaska chlamydia and gonorrhea rates are highest among Black and Alaska Native persons 15-24 years of age. All chlamydia (6,726) and gonorrhea (7,600) cases from 1/1/89 through 12/31/99 were compared to the all reported cases of HIV (717).

*Chlamydia (CT):* Four (4) individuals ever reported with HIV had 5 cases of CT reported since 1/1/89. No individuals were reported with chlamydia after the reported date of HIV onset.

*Gonorrhea:* Thirteen (13) individuals ever reported with HIV had 18 cases of gonorrhea reported since 1/1/89. Three (3) individuals were reported with one case (each) of gonorrhea after the reported date of HIV onset.

While persons with STD have engaged in unsafe sexual behavior, having an STD does not necessarily correlate closely in Alaska with exposure to HIV or HIV infection rates.

*Hepatitis C and HIV Infection.* Recent cases of hepatitis C infection in the U.S. are increasingly related to injection drug use. All reported cases of hepatitis C (3,073) in Alaska were compared to all reported HIV cases (717). Sixty-two (62) individuals were reported with hepatitis C and also with HIV.

*Tuberculosis and HIV Infection.* HIV infection in persons with tuberculosis is uncommon in Alaska. Of the 404 cases of TB reported from 1994 through 1998, six (1.5%) were also infected with HIV. In 1999, no individuals were reported with both HIV and TB. Tuberculosis occurs predominantly among Alaska Native and Asian/Pacific Island populations and is equally distributed between males and females.

## **Partner Notification Services**

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

Partner notification is the single most effective way to reach individuals at highest risk of exposure and infection. Public health personnel providing 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.

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.

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,
- reduce their potential infectiousness to others.

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 requesting AIDS/STD Program assistance;
- The AIDS/STD Program is accountable for these activities.

### 1999 Partner Notification Activities

Ideally all newly identified infected persons would participate in partner notification activities with public health personnel. HIV reporting has facilitated the ability of public health personnel to offer these services to providers and their patients. Participation in and results of 1999 partner notification (P/N) activities coordinated or conducted through the AIDS/STD Program in the first year of HIV reporting are described below:

Total HIV cases diagnosed in 1999 = 29

Source of diagnosis/report:

Provider = 24

Partner notification activity = 5

Total participating in P/N activities through AIDS/STD Program = 14

Of 24 provider-reported cases = 9

Of 5 infected individuals newly identified through P/N = 5

Characteristics of 14 participating infected individuals:

8 males

6 females

Risk-related information:

3 history of IDU

3 history of prostitution

2 females pregnant

1 incarcerated

1 male-male sex

Characteristics of 15 non-participating individuals:

15 males

Risk-related information:

5 male-male sex

10 risks not identified

Reasons for nonparticipation:

8 declined

3 said they were notifying partners themselves

2 had moved

2 died

The nine original patients participating in partner notification activities plus the five contacts newly found to be HIV infected named a total of 78 sexual and/or injecting contacts, 67 of whom were located and provided with counseling and HIV testing in 1999 (Table 11). Three contacts had been previously identified as HIV infected through activities independent of partner notification services. Overall characteristics of infected patients and their contacts are described below and in Table 12.



- Characteristics of infected patients and contacts:
- without steady employment and/or living situations,
  - living in Anchorage as well as in rural areas
  - not part of any structured environment (agency, school, treatment facility)
  - those engaging in male-male sex generally did not self-identify as gay
  - did not perceive themselves to be at risk for HIV

The 67 exposed individuals who received risk reduction counseling and HIV testing were unlikely to have been reached through any other HIV prevention services.

**Table 11. Partner Notification Activity 1999 (Contacts and Results by Case)**

Case	Contacts	# Notified/Tested	# Newly Identified HIV Infected	# Previously Identified HIV Infected
1	16	16	1	0
2	12	10	1	0
3	3	3	1	0
4	10	6	0	0
5	1	1	1	0
6	1	1	0	0
7	8	6	1	2
8	1	1	0	1
9	2	2	1	0
10	9	9	0	0
11	4	3	0	0
12	7	7	0	0
13	3	1	0	0
14	1	1	0	0
Total	78	67	6	3

**Table 12. Partner Notification Activity 1999 (Coscontacts by Race/Ethnicity and Age)**

Age	White	Native	Black	Asian/P.I.	Hispanic	Total
13-19						0
20-24	2	2	2	1		7
25-29	13	10	1			24
30-34	11	16	2		2	31
35-39	4	7				11
40-44		3				3
45-49					1	1
50+		1				1
Total	30	39	5	1	3	78

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.

Individual clients differ: one may provide partners' names readily while another may not, requiring an extended time to deal with sexuality, mental health, housing, substance abuse and other critical issues.

Public health professionals conduct multiple interviews with HIV infected patients. During these interviews patients identify partners as well as further identify their individual needs. Patient needs are addressed through service referrals. This process allows clients to establish rapport with public health personnel, maximizes the client's voluntary participation in the partner notification process, and expedites the client's entry into care.

### **Case Investigation Example**

To demonstrate the effectiveness of partner notification, we present one example of a recent investigation (Figure 10). This ongoing investigation has linked one HIV positive individual to 35 direct or indirect partners in multiple cities across Alaska. Of three partners who are HIV positive, two had HIV infections newly detected as a result of this investigation. All four HIV infected individuals have been referred into clinical care and are currently receiving treatment for their HIV infection.

#### **Client #1**

The original patient was interviewed three separate times for sex and needle sharing partners. The interview period was initially determined to extend for 6 years prior to diagnosis, and the patient named 34 male sexual partners during this period (no injection drug use was reported). As the investigation proceeded, additional information on the patient's HIV testing history narrowed the period during which others could have been exposed to one year. As a result, we shortened the resulting interview period

for partners. Partner notification was initiated for the 12 partners exposed during that one-year period. Dispositions are known for 10 of these 12 partners, one of whom newly tested HIV positive. The two remaining partners are being located, notified, counseled and tested.

#### **Client #2**

This newly identified HIV positive male patient was interviewed 5 times. Ongoing interviews continue to identify additional partners and provide opportunities to make other referrals for the patient's clinical care. Of 5 partners identified to date, dispositions are known for three, two of whom are HIV positive. One of the two was previously unknown to be infected. The other two partners remain to be located, notified, counseled and tested.

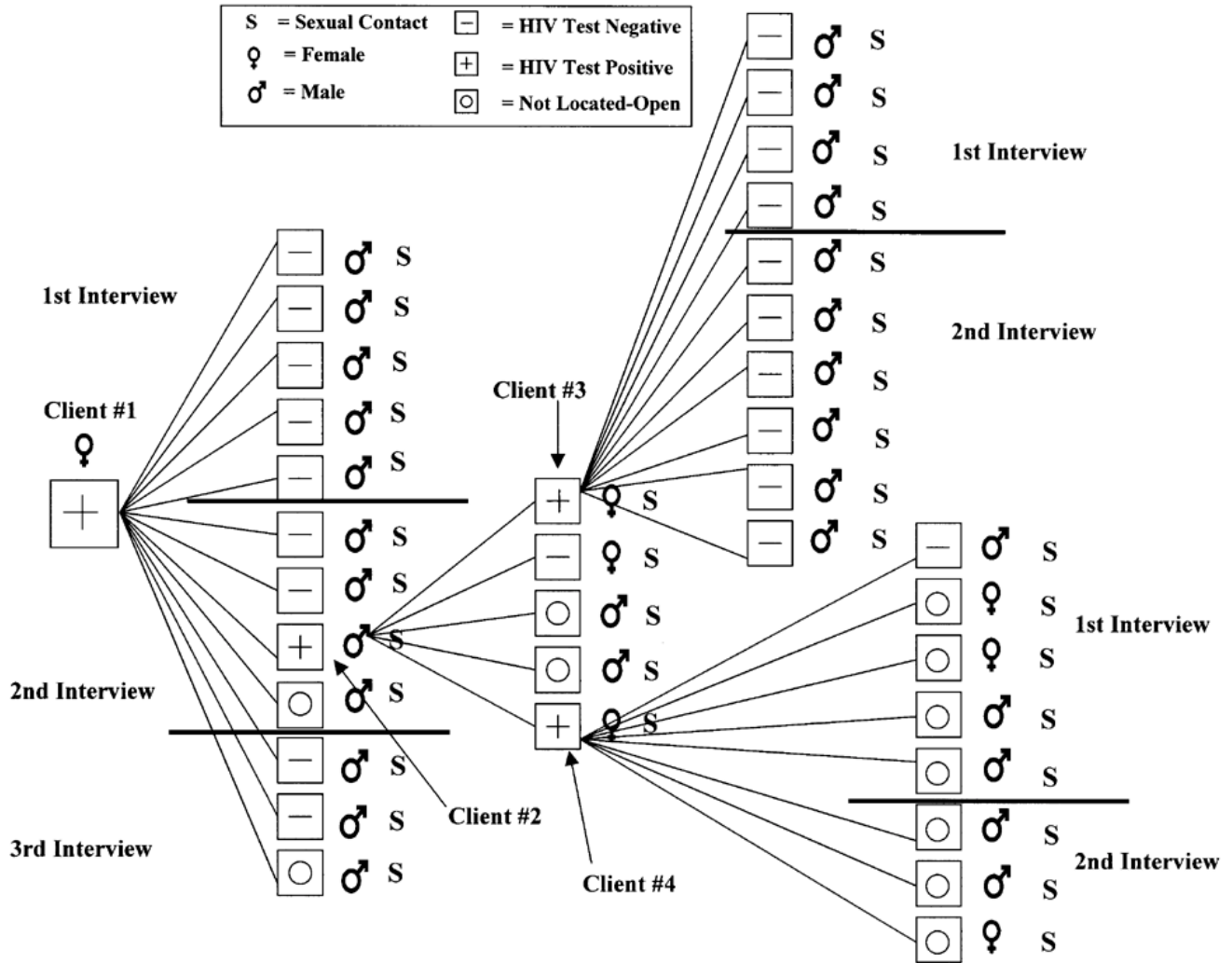
#### **Client #3**

This newly identified HIV positive patient named 10 sexual partners during two separate interviews. Dispositions are known for all 10 of these partners. None were HIV infected.

#### **Client #4**

When this partner was notified of her exposure, she shared that she had previously tested HIV positive. She had not been offered partner notification at the time of her initial positive test result and now wished to participate in this service. This client has named 8 sexual partners during two interviews. One partner was notified and tested negative. The remaining 7 partners are in the process of being located and offered testing, counseling and referrals to care, as necessary.

Figure 10. Case Investigation Example



## Conclusion

The reporting of HIV infection has provided the following benefits:

1) more accurate data on the incidence and prevalence of HIV infection in Alaska. Subsequent years of data should provide better information on trends in risk behaviors and demographics of persons newly diagnosed with HIV infection. These data will help inform program funding needs, prevention activities, and planning for care and support services; and

2) more timely reporting of individual cases to facilitate case follow-up and partner notification activities. Case follow-up by public health personnel provides assistance to access medical evaluation, diagnosis and treatment, counseling to prevent further transmission, and support services. Partner notification efforts facilitate HIV prevention counseling, testing, and referral for persons exposed to HIV infection.