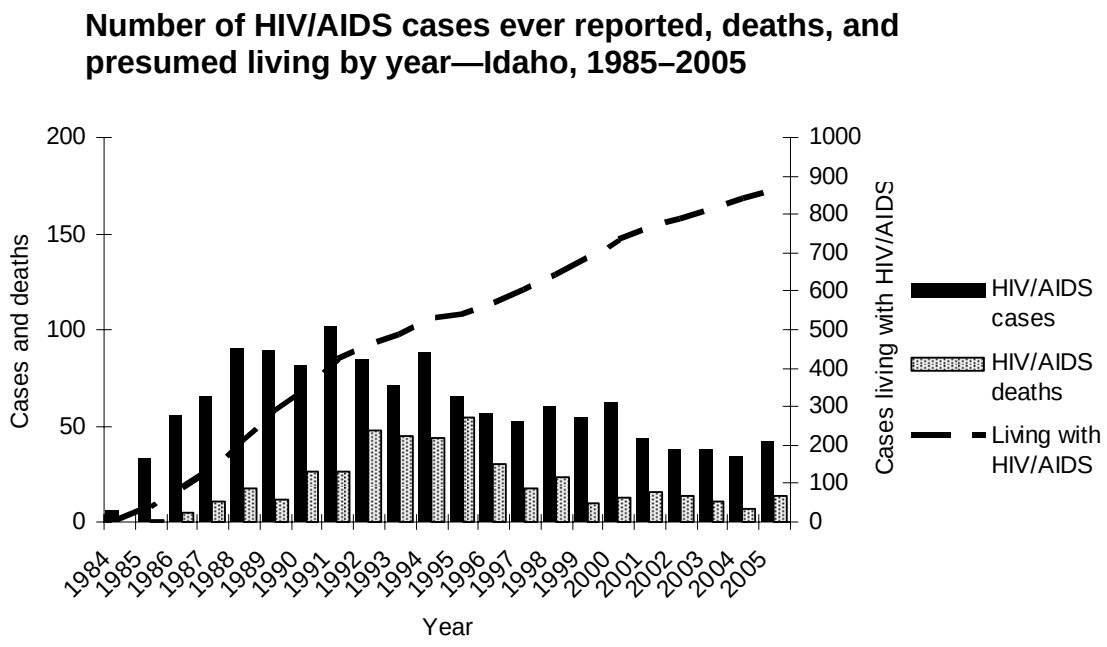
Idaho HIV/AIDS Epidemiologic Profile



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List of Abbreviations:

AI/AN	American Indian/Alaska Native
A/PI	Asian/Pacific Islander
ADAP	AIDS Drug Assistance Program
AIDS	acquired immunodeficiency syndrome
BRFSS	Behavioral Risk Factor Surveillance System
CADR	CARE Act Data Report
CARE	Comprehensive AIDS Resources Emergency (Act)
CDC	Centers for Disease Control and Prevention
EMA	eligible metropolitan area
HARS	HIV/AIDS Reporting System
HIV	Human Immunodeficiency Virus
HRSA	Health Resources and Services Administration
IDHW	State of Idaho Department of Health and Welfare
IDU	injection drug user
MSM	men who have sex with men
NCHSTP	National Center for HIV, STD, and TB Prevention (CDC)
NIR	no identified risk
NRR	no reported risk
OEFP	Office of Epidemiology and Food Protection
PLWA	people living with AIDS
PLWH	people living with HIV
RWCA	Ryan White Comprehensive AIDS Resources Emergency (Act)
STD	sexually transmitted disease
TB	tuberculosis
YRBSS	Youth Risk Behavioral Surveillance System

Introduction

Purpose

The Idaho Department of Health & Welfare's Sexual and Reproductive Health Program and the Idaho Care and Prevention Council (ICPC) use HIV/AIDS epidemiologic and surveillance data to provide guidance and funding for programs for persons with, or at risk for, HIV/AIDS. The goals of these programs are to prevent HIV infections and, for those who are infected, to promote testing, care, and treatment.

Prevention and care planning groups use HIV/AIDS epidemiologic profiles for multiple purposes. This document describes the current impact of the HIV/AIDS epidemic in Idaho in terms of sociodemographic, geographic, behavioral, and clinical characteristics of persons infected with HIV. The profile is intended to be a valuable tool that is used at the state and local levels by those who make recommendations for allocating HIV prevention and care resources, planning programs, and evaluating programs and policies.

Audience

The epidemiologic profile is meant to be used by HIV/AIDS prevention and care planners as a tool to make decisions for prioritizing target populations for prevention and care, and for others in the general public to gain knowledge of the impact of HIV/AIDS on Idaho's population and care system for informed action.

Data Sources and Strengths and Weaknesses

A variety of data sources were used in this document. Each has strengths and limitations which affect interpretation. See Appendix A: Data Sources and Strengths and Weaknesses for details related to the data sources used in this document.

Methods

Case Counting

A case of HIV is counted as an Idaho case if the state of residence at first diagnosis is Idaho. Likewise, for AIDS, an Idaho case is one in which the state of residence at diagnosis of AIDS is Idaho. In 2004 and 2005, DHW participated in the Interstate Duplication Elimination Project (IDEP). IDEP is a CDC-coordinated project aimed at eliminating duplicate reports of HIV and AIDS cases among states. Each case of HIV and AIDS is assigned to the state (or states when the diagnosis of HIV and AIDS occurs in two different states) where a person was first diagnosed. Through this project, DHW observed that 32% of cases of HIV infection and 7% of AIDS cases initially counted among Idaho cases were first diagnosed in another state. As such, the change of residence where the case was diagnosed reduced both cumulative and yearly totals for Idaho.

DHW attempts to present HIV/AIDS data in a manner which meets the purpose of this document, which can more easily allow groups to plan for HIV prevention and HIV/AIDS care. In particular, where the purpose is to ascertain the populations being infected in Idaho, only HIV/AIDS cases where Idaho is the residence at first diagnosis are presented. This applies to the analysis of recent trends and to the tabulations of recent diagnoses in health districts and among

special populations. For "Presumed Living With HIV/AIDS", where the purpose is to ascertain a potential burden for HIV/AIDS care or a population of potential secondary transmission in Idaho, all cases not reported as deceased, regardless of residence at first diagnosis, are included in analysis.

Trends

Reporting delays (time between diagnosis of HIV/AIDS and report) can vary. The CDC estimates that about 80% of all AIDS cases and about 92% of all HIV infections are reported within 1 year.

In graphs of trends over time, year of first HIV diagnosis is usually used rather than year of report, since year of diagnosis more closely reflects the actual trends in infection. In AIDS incidence trends over time, however, year of AIDS diagnosis is used.

Presumed Living with HIV/AIDS

Presumed Living with HIV/AIDS, as used in this document, describes cases of HIV/AIDS that have been reported, regardless of residence at first diagnosis (i.e., have moved to Idaho after prior diagnosis in another state) and are not reported as deceased. This document cannot describe the attributes or number of Idahoans who are infected and not reported to public health.

Race/Ethnicity

HIV/AIDS surveillance data are categorized by race/ethnicity in combined race/ethnicity categories. The National Center for Health Statistics has provided the IDHW Bureau of Vital Statistics and Health Policy with population data sets based on U.S. Census estimates which allow population race/ethnicity breakdowns into these combined categories:

- Hispanic – any race
- American Indian/Alaska Native (AI/AN), not Hispanic
- Asian/Pacific Islander (A/PI), not Hispanic
- Black, not Hispanic
- White, not Hispanic

Unless otherwise noted, these categories are used.

Age Groups

Age groups used for HIV/AIDS surveillance are unique due to the definitions of pediatric and adult cases. When a person is diagnosed with HIV or AIDS, a determination of pediatric or adult HIV or AIDS case is made based on the age at diagnosis. Persons 12 or under at the time of diagnosis are considered pediatric cases and persons aged 13 or above are considered adult cases. In most presentations of these data, the age groups used are: 0-12, 13-19, 20-29, 30-39, 40-49, and Over 50.

Sex

Sex is reported as male, female, or unknown. Transgender identification is not collected.

Modes of Exposure

All state and city HIV/AIDS surveillance systems funded by the Centers for Disease Control and Prevention use a standardized hierarchy of mode of exposure categories. HIV and AIDS cases with more than one reported mode of exposure to HIV are classified in the exposure category listed first in the hierarchy. In this way, each case is counted as having only one mode of exposure. The only exception to this rule is the dual risk of male-to-male sex (MSM) and

intravenous drug use (IDU), which makes up a separate exposure category in the hierarchy. The following is a list of the hierarchy for adolescent/adult HIV/AIDS cases:
(1) MSM
(2) IDU
(3) MSM/IDU
(4) Hemophilia patient
(5) Heterosexual contact
(6) Receipt of blood transfusion or tissue/organ transplant
(7) Other (e.g. needle stick in a health care setting)
(8) Risk not specified.

The following is the list of the hierarchy for pediatric HIV/AIDS cases:
(1) Hemophilia patient
(2) Mother with HIV or HIV risk
(3) Receipt of blood transfusion or tissue/organ transplant
(4) Other
(5) Risk not specified.

Heterosexual contact is only designated if a male or female can report specific heterosexual contact with a partner who has, or is at increased risk for, HIV infection (e.g. an intravenous drug user). For females this also includes heterosexual contact with a bisexual male (mainly due to the elevated prevalence of HIV infection among men who have sex with men).

"Risk not specified" refers to cases 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 cannot or who have not yet been interviewed by health department staff, 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 follow-up information was available but no exposure was identified or acknowledged.

The growing number of cases with unspecified risk in recent years is, in part, artificial and due to interviews that have not yet been completed. In time, a number of these will be assigned a mode of exposure category. However, part of the observed increase is real. As stated above, a person must have intimate knowledge about his/her partner to meet the criteria for heterosexual mode of exposure. Often cases will not be certain about their partners' HIV status or risk. Additionally, the perception of social stigma presumably decreases the likelihood that a person will acknowledge certain risk behaviors, particularly male-to-male sex or injecting drug use. Thus, if the true numbers of cases due to heterosexual contact, MSM, and/or IDU increase, a larger number of cases without a specified risk would be expected.

A recent study by the Centers for Disease Control and Prevention used statistical methods to redistribute risk among female HIV/AIDS cases with unspecified risk. The results are helpful but are based on national data that are not necessarily applicable to the state or local level. Speculation regarding the distribution of risk behaviors among those with unspecified risk is difficult, especially in men, for whom not even a national study is available.

Limitations of this document

When making planning decisions, it is important to consider the overall strengths and limitations of this document. Although the profile is comprehensive and draws from a number of data sources, there are many things that the profile cannot explain. The HIV/AIDS surveillance system in Idaho is based on data on people who have been tested for HIV. Consequently, HIV infections are under-detected and under-reported because only persons with HIV who were tested are counted. Also, persons are tested at differing times after they become infected, and many persons are not tested until HIV infection has progressed to AIDS. Thus, it is important to remember that the data in this report do not necessarily represent the characteristics of persons who have been recently infected with HIV, nor do they provide a true measure of HIV incidence.

Analyses of many different data sets are presented to provide robust representations of particular subpopulations. However, demographic and geographic subpopulations are disproportionately sensitive to differences and changes in access to health care, HIV testing patterns, and specific prevention programs and services. All of these issues must be carefully considered when interpreting HIV data. Therefore, it is important to make comparisons across data sources to get the most complete picture.

Executive Summary

- A 2004 national HIV/AIDS case de-duplication project between states resulted in a 32% decrease in HIV and 7% decrease in AIDS cases thought to have been first diagnosed and reported in Idaho.
- Idaho's 2005 population is estimated at 1,429,096. A large majority (88%) of residents are White; about 9% are Hispanic. Idaho's population ranks 7th youngest in the U.S. with an average age of 34.6 years. Over 10% of families and 14% of individuals live below the poverty level.
- Nine hundred fifty-nine persons were first diagnosed with HIV or AIDS while living in Idaho from 1984–2005. Five hundred, sixty-nine had an AIDS diagnosis at the end of 2005. Idaho cases are 0.16 of the total HIV cases and 0.06% of the total AIDS cases in the U.S. reported through 2005.
- The number of reported persons presumed living with HIV/AIDS in Idaho has increased each year since the first HIV/AIDS cases were diagnosed in Idaho in 1984. Most persons living with HIV/AIDS in Idaho are White. However, the rate of individuals presumed living is highest in Blacks.
- Males have been diagnosed with HIV/AIDS at a higher rate each year than females during 2001-2005. The rate among persons aged 30-39 years was higher than other age groups overall. MSM continues to be the most reported mode of exposure and the only one to show an overall increasing trend.
- MSM account for over 40% of HIV/AIDS diagnosed during the last 5 years (2001–2005). Almost one-third of the 70 MSM diagnosed during 2001–2005 were White and aged 30-39 years. Hispanic MSM cases were distributed in younger age groups compared with White MSM.
- Fifteen MSM/IDU cases were diagnosed during 2001–2005. MSM/IDU cases were distributed toward the under-40 age groups compared with MSM-only cases. All were White.
- Two thirds of the 18 IDUs diagnosed during 2001–2005 were males. All but one case were 30 years or older. Most cases of either sex were Whites, but American Indian/Alaska Natives were overrepresented.
- Twenty cases of HIV/AIDS were diagnosed during 2001–2005 and reported heterosexual mode of exposure. Sixty percent were women. Hispanic race/ethnicity accounts for about one fifth of the cases. The most frequently reported partner risks are sex with IDU (n=11/20) and sex with someone with HIV/AIDS (n=8/20).
- Over 40% of the 41 women diagnosed 2001–2005 reported heterosexual risk. A majority of cases among women were White, but over one quarter were Hispanic.
- Seventy percent of the 23 HIV/AIDS cases in youth (aged 13-24 at diagnosis) were males; most males were White MSM. Female youth reported with HIV/AIDS are proportionally more non-White when compared with total HIV/AIDS.

What are the sociodemographic characteristics of the population in Idaho?

Idaho has 44 counties and a land area of 83,557 square miles with agriculture, forestry, manufacturing, and tourism being the primary industries. Eighty percent of Idaho's land is either range or forest. Much of the state's central interior is mountain wilderness and national forest. Nineteen of Idaho's 44 counties are considered "frontier," with averages of less than six persons per square mile.

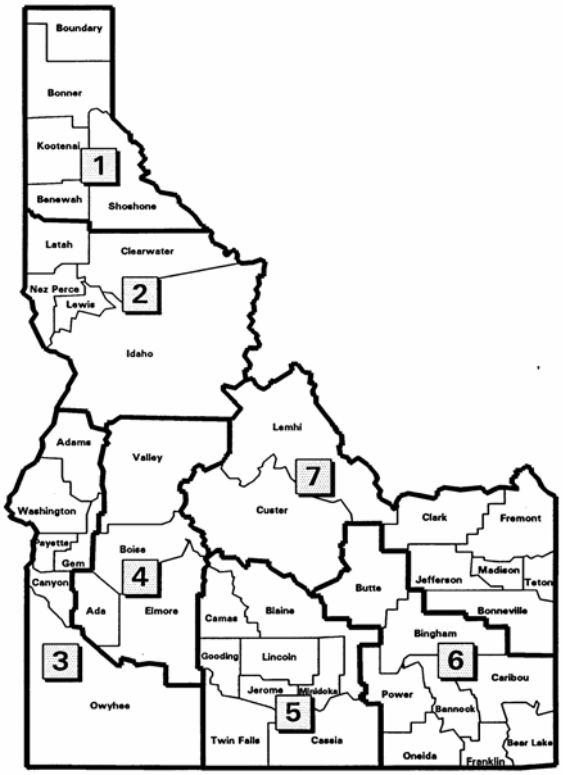

Figure 1. Idaho health district boundaries

The US Census Bureau estimated Idaho's population in 2005 at 1,429,096. The physical barriers of terrain and distance have consolidated Idaho's population into seven natural regions. Idaho's public health delivery system is organized around the seven population centers, with counties grouped into seven districts (Figure 1). Population proportions for the districts range from 7.0% to 27.2 % (Table 1).

Idaho's population ranks 7th youngest among U.S. states and the District of Columbia. The U.S. Census Bureau, based in the American Community Survey 2005, calculated the median age to be 34.6 years in 2005, compared to the U.S. median age of 3.6.4. According to U.S. Census Bureau estimates for 2005, almost 20% of the population are aged 12 and under (Table 2). Another quarter of the population is 13–29 years of age.

Table 1. Idaho population by health district, 2005

Health district	N	%
District 1	201,570	14.1%
District 2	100,465	7.0%
District 3	227,825	15.9%
District 4	389,228	27.2%
District 5	170,617	11.9%
District 6	162,342	11.4%
District 7	177,049	12.4%
TOTAL	1,429,096	100.0%

The majority of Idaho's general population are non-Hispanic Whites (87.8%). Hispanics (any race) are 9.1% of the population (Table 3). All other race/ethnic categories make up the remaining 3.1% of the population. A smaller proportion of Idahoans are foreign born or speak a language other than English at home, compared to the U.S. population as a whole.

At the 2000 census, educational achievement of high school or greater was higher than the U.S. population as a whole, but proportionally fewer go on to receive a bachelor's degree (Table 4).

Poverty is increasing in Idaho. Over 10% of families and almost 14% of individuals live below the poverty level, an increase of 3% in both categories from 2003. According to the 2005 Idaho Behavioral Risk Factor Surveillance Survey (BRFSS), almost one fifth (18.9%) of individuals 19-64 years are medically uninsured.

Table 2. Idaho population by age group, 2005

Age Group	Total N	%
0-12	266,669	18.7%
13-19	152,007	10.6%
20-29	213,978	15.0%
30-39	185,332	13.0%
40-49	205,243	14.4%
50 +	405,867	28.4%
TOTAL	1,429,096	100.0%

Table 3. Idaho population by race/ethnicity, 2005

Race/Ethnicity	N	%
Hispanic	129,880	9.1%
White (non-Hispanic)	1,254,455	87.8%
Black (non-Hispanic)	8,778	0.6%
American Indian/Alaska Native (AI/AN) (non-Hispanic)	18,864	1.3%
Asian/Pacific Islander (A/PI) (non-Hispanic)	17,119	1.2%
TOTAL	1,429,096	100.0%

Table 4. Selected population characteristics, Idaho and the U.S., 2005

Characteristic	Idaho	U.S.
Population 25 years and over		
High school graduate or higher	86.7%	84.2%
Bachelor's degree or higher	23.3%	27.2%
Foreign born (all ages)	5.5%	12.4%
Married males (population 15 years and over)	60.4%	55.9%
Married females (population 15 years and over)	57.6%	51.0%
Speak a language other than English at home (5 years and over)	9.7%	19.4%
Families below poverty level	10.3%	10.2%
Individuals below poverty level	13.9%	13.3%

Source: U.S. Census Bureau, 2005 American Community Survey

What is the scope of the HIV/AIDS epidemic in Idaho?

Cumulative HIV and AIDS

While all states report HIV infection, CDC only accepts HIV reports from states with name-based reporting systems, like Idaho. Idaho residents accounted for 0.16% of total HIV cases and 0.06% of total AIDS cases reported in the U.S. since the beginning of the HIV/AIDS epidemic, according to the 2005 CDC HIV/AIDS Surveillance Report.

HIV

Of persons reported with HIV (not yet AIDS), the great majority (80%) are male (Table 5); 81% are White. By age, the highest proportion of HIV cases are diagnosed in 20-29 year-olds (40%), and 30-39 year-olds account for more than 1/3 of cases. The most frequently reported exposure category is MSM, although the proportion is less than half of the total. IDU, MSM/IDU, heterosexual contact, and undetermined risk account for notable proportions. Four HIV cases were pediatric cases.

AIDS

A total of 569 cases of AIDS have been reported in Idaho from 1985 through 2005 (Table 5). An even greater majority are male compared to HIV cases, and 88% are White. Over half of diagnosed cases were among MSM. Other prominent exposure categories are Heterosexual contact, IDU, and MSM/IDU. Three cases were pediatric. Compared with HIV cases, the age at diagnosis is distributed toward older age groups. Over forty percent of AIDS cases were 30–39 years old when first diagnosed with HIV/AIDS; almost thirty percent were 40–49 years old.

Table 5. Characteristics of cumulative non-duplicated Idaho resident HIV & AIDS diagnosed through 12/31/2005

	Disease/Condition			
	HIV		AIDS	
	N	%	N	%
Sex				
Male	311	80%	493	87%
Female	79	20%	76	13%
Total	390	100%	569	100%
Race/ethnicity				
Hispanic	43	11%	48	8%
American Indian/Alaska Native	11	3%	8	1%
Asian/Pacific Islander	1	0%	3	1%
Black	20	5%	10	2%
White	315	81%	498	88%
Unknown	0	0%	2	0%
Total	390	100%	569	100%
Exposure categories - adults				
Men who have sex with men (MSM)	176	46%	303	53%
Injection drug use	59	15%	69	12%
MSM and inject drugs	30	8%	45	8%
Hemophilia/Coagulation disorder	1	0%	18	3%
Heterosexual Contact	57	15%	73	13%
Receipt of blood, components, or tissue	5	1%	13	2%
Other/risk not reported or identified	58	15%	46	8%
Total	386	100%	567	100%
Exposure categories - pediatric				
Mother with/at risk for HIV infection	3	75%	0	0%
Receipt of blood, components, or tissue	0	0%	2	100%
Other/Undetermined	1	25%	0	0%
Total	4	75%	2	100%
Age group at first diagnosis				
< 13	4	1%	2	0%
13-19	8	2%	3	1%
20-29	155	40%	84	15%
30-39	139	36%	252	44%
40-49	64	16%	158	28%
Over 49	20	5%	70	12%
Total	390	100%	569	100%

Presumed Living with HIV/AIDS

New HIV/AIDS cases have outnumbered HIV/AIDS deaths every year since Idaho's first case in 1984. Prior to the widespread use of protease inhibitors beginning in 1996, deaths averaged 26 per year. Afterward, Idaho averaged 10 fewer deaths per year. With new cases outnumbering deaths, the number of reported persons living with HIV/AIDS in Idaho has increased (Figure 2). As of 12/31/2005, 866 persons ever reported in Idaho (regardless of whether they were diagnosed in Idaho or moved from another state) are presumed to be still living with HIV/AIDS. Of these, 426 (49%) have an AIDS diagnosis. While the possibility remains of over-counting of presumed living cases due to out-migration or deaths out of state, these figures represent only diagnosed and reported cases. Individuals infected but who are unaware of their HIV infection and have not been tested or reported are part of the true population of interest and mitigate potential over-counting.

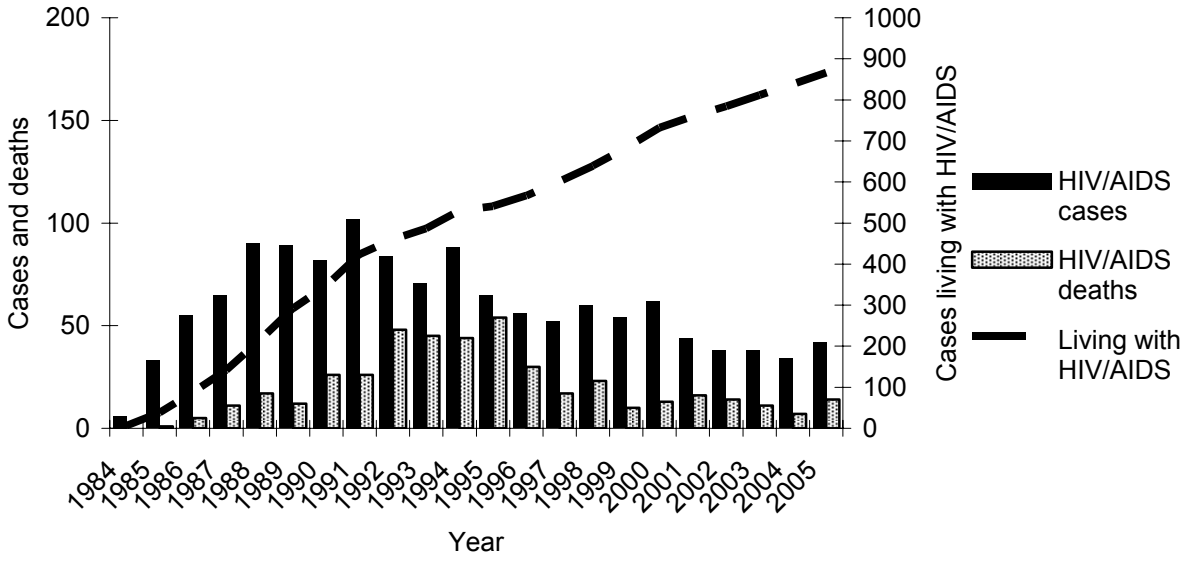

Figure 2. Number of HIV/AIDS cases ever reported*, deaths, and presumed living by year—Idaho, 1985–2005

*Regardless of residence at first diagnosis.

More males than females are living with HIV/AIDS in Idaho (Table 6); males outnumber females at a ratio of 4.5:1. The distribution by age for males is slightly older than for females. Overall, the prevalence rate is highest in the 40-49 year age group.

Table 6. Presumed living with an HIV/AIDS by sex and current age group—Idaho, 2005

	Males			Females			Total		
Current age group	N	%	Rate	N	%	Rate	N	%	Rate
<13	0	0%	0.0	2	1%	19.8	2	0%	0.7
13-19	2	0%	2.6	5	3%	6.8	7	1%	4.6
20-29	39	6%	35.5	21	13%	20.2	60	7%	28.0
30-39	169	24%	177.4	39	25%	43.3	208	24%	112.2
40-49	340	48%	330.3	65	41%	63.5	405	47%	197.3
50+	159	22%	81.9	25	16%	11.8	184	21%	45.3
TOTAL	709	100%	98.9	157	100%	22.0	866	100%	60.6

The majority of persons living with HIV/AIDS in Idaho are White (Table 7), but the rate (per 100,000) is lower than in many other race/ethnic categories. Blacks have the highest rate. American Indians/Alaska Natives have the second highest rate, followed by persons of Hispanic ethnicity (any race).

Table 7. Presumed living HIV and AIDS cases by sex and race/ethnicity—Idaho, 2005

	Males			Females			Total		
Race/Ethnicity	N	%	Rate	N	%	Rate	N	%	Rate
Hispanic	70	10%	100.9	22	14%	36.3	92	11%	70.8
AI/AN	18	3%	192.0	4	3%	42.2	22	3%	116.6
A/PI	4	1%	49.4	0	0%	0.0	4	0%	23.4
Black	29	4%	582.4	13	8%	342.2	42	5%	478.5
White	586	83%	93.7	118	75%	18.7	704	81%	56.1
Unknown	2	0%	-	0	0%	-	2	0%	-
TOTAL	709	100%	98.9	157	86%	22.0	866	100%	60.6

Most males living with HIV/AIDS in Idaho had MSM mode of exposure classification (Table 8). IDUs account for 12% and the dual-category MSM/IDUs are an additional 12%. Almost half of females living with HIV/AIDS had heterosexual risk at report. Almost one third indicated IDU risk, a slightly higher proportion than in males, even if IDU is combined with MSM/IDU.

The highest rate of reported persons presumed living with HIV/AIDS was in health district 4 (Table 9), which also has the highest number of persons living with HIV/AIDS. The rate in health district 7 was lowest.

Table 8. Presumed living HIV/AIDS cases by sex and mode of exposure—Idaho, 2005

	Males		Females		Total	
Exposure category	N	%	N	%	N	%
Adult						
MSM	397	56%	N/A	-	397	46%
IDU	85	12%	45	29%	130	15%
MSM/IDU	83	12%	N/A	-	83	10%
Hemophiliac	4	1%	1	1%	5	1%
Heterosexual contact	49	7%	75	48%	124	14%
Transfusion/transplant	9	1%	4	3%	13	2%
Risk not specified	81	11%	25	16%	106	12%
Pediatric						
Mother with/at risk HIV	1	0%	6	4%	7	1%
Other/undetermined	0	0%	1	1%	1	0%
TOTAL	709	100%	157	100%	866	100%

Table 9. Presumed living HIV/AIDS cases by district—Idaho, 2005

District	N	%	Rate
1	103	12%	51.1
2	52	6%	51.8
3	116	13%	50.9
4	379	44%	97.4
5	89	10%	52.2
6	72	8%	44.4
7	55	6%	31.1
TOTAL	866	100%	458.6

HIV/AIDS Trends

The majority of cases of HIV/AIDS in Idaho are male. Males were diagnosed at an average rate four times higher than females during 2001–2005 (4.0 for males vs. 0.9 for females per 100,000 population). The rates of HIV/AIDS diagnoses in males and females were variable during the time period (Figure 3); no overall increase or decrease was observed.

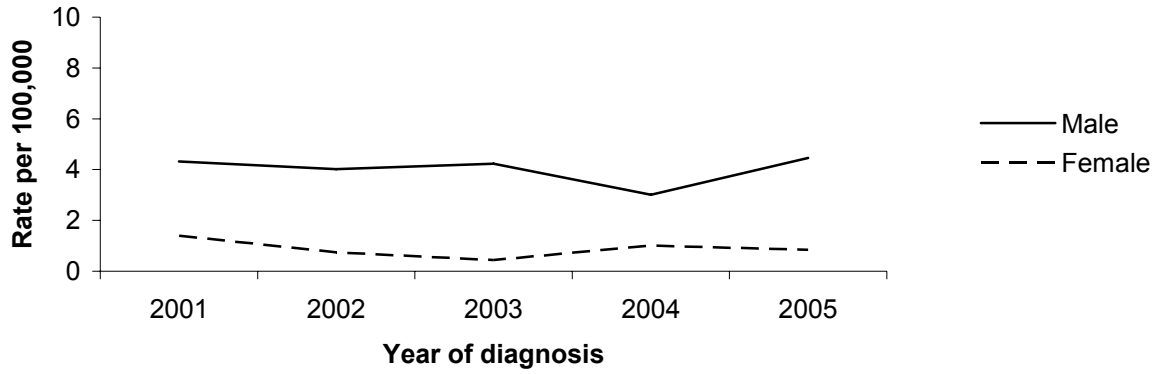

Figure 3. Rates of HIV/AIDS diagnoses by sex—Idaho, 2001–2005

Rates of HIV/AIDS diagnoses were relatively unchanged during 2001–2005 by age group (Figure 4). The rate was highest overall in the 30-39 year age group, averaging 6.4 per 100,000 population compared with 4.6 and 4.4 per 100,000 population for the 40-49 year age group and the 20-29 year age group, respectively.

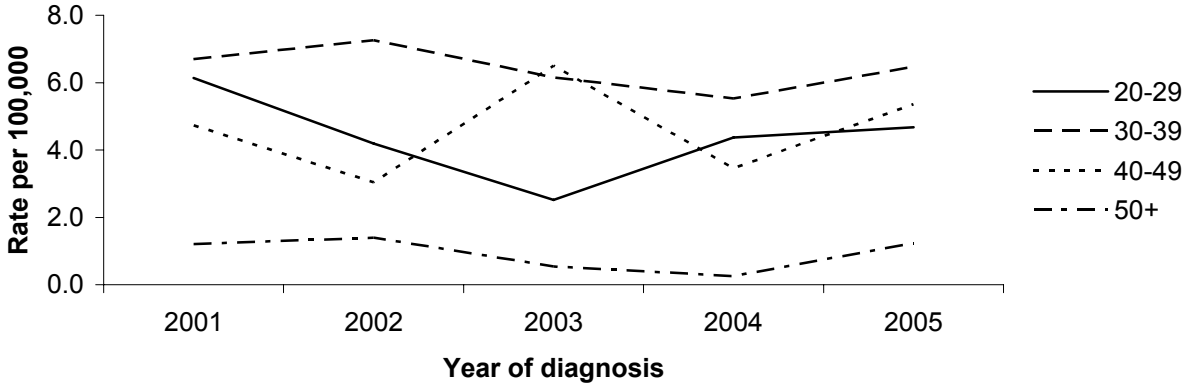

Figure 4. Rates of HIV/AIDS diagnoses by selected age group—Idaho, 2001–2005

Most cases during the time frame were White (Figure 4), although the rate among Whites was at times lower than Blacks and Hispanics (Figure 5). Blacks had the highest rates in most years, but the low number of cases (range 0-3) and low population denominator caused unstable variations in the rate.

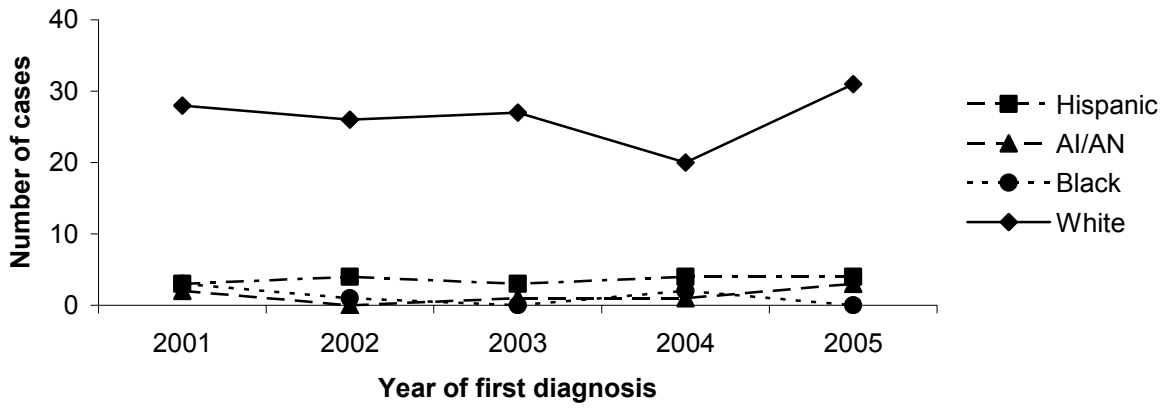

Figure 5. HIV/AIDS diagnoses by selected race/ethnicity—Idaho, 2001–2005

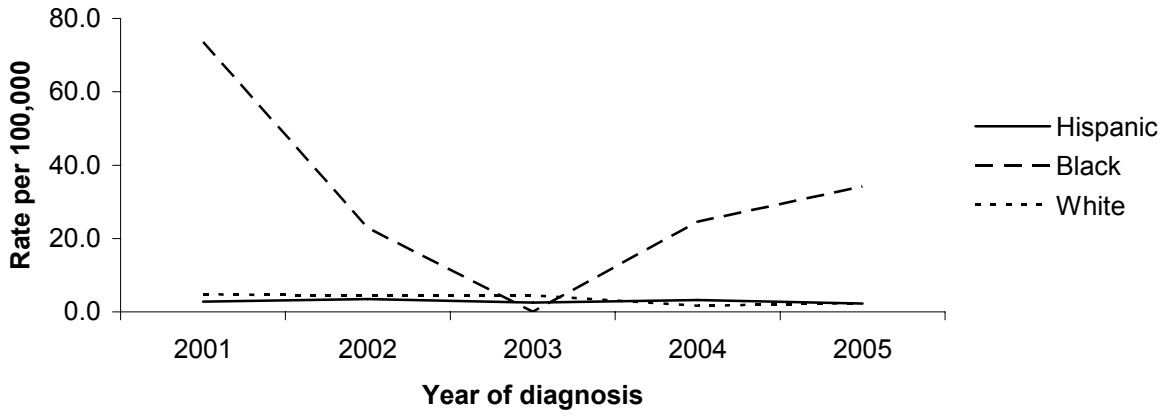

Figure 6. Rates of HIV/AIDS diagnoses by selected race/ethnicity—Idaho, 2001–2005

MSM has been the most frequently reported mode of exposure every year; 42% (n=70) of all diagnoses during the 5-year period fell into this exposure category. Furthermore, MSM was the only mode of exposure category that showed an overall increase (Figure 7).

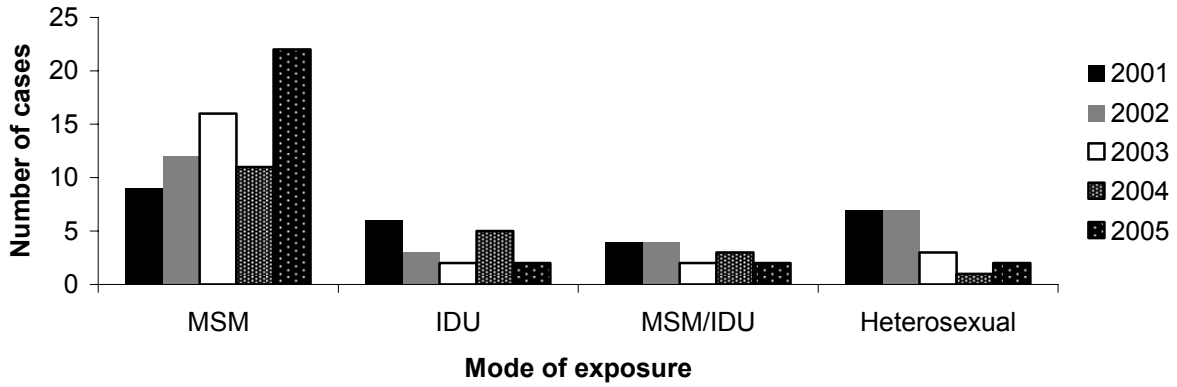

Figure 7. Number of HIV/AIDS diagnoses by selected mode of exposure—Idaho, 2001–2005

Populations of Interest

Reported cases of HIV/AIDS diagnosed in Idaho residents during the past 5 years (2001–2005) were chosen for this section to highlight the characteristics of the most recent cases in these special populations. Special populations examined in this document are: Men who have sex with men and do not inject drugs (MSM), MSM who inject drugs (MSM/IDU), non-MSM injection drug users (IDU), Heterosexuals, and Youth.

Men Who Have Sex with Men (non-IDU)

Over 40% (n=70) of HIV/AIDS cases diagnosed during 2001–2005 (n=167) were MSM. Among Idaho MSM first diagnosed with HIV/AIDS (Table 10), about one-third were White and aged 30-39 years at diagnosis. Non-White MSM tended to be younger at diagnosis: none were more than 40 years old, while men aged 40 and older account for almost one third of diagnoses among White MSM.

Table 10. HIV/AIDS cases among MSM (non-IDU) by age group—Idaho, 2001–2005

	Hispanic		AI/AN		White		Other		TOTAL	
Age Group	N	%	N	%	N	%	N	%	N	%
13-19	0	0%	0	0%	2	3%	0	0%	2	3%
20-29	1	25%	0	0%	19	30%	1	100%	21	30%
30-39	3	75%	1	100%	23	36%	0	0%	27	39%
40-49	0	0%	0	0%	16	25%	0	0%	16	23%
50+	0	0%	0	0%	4	6%	0	0%	4	6%
TOTAL	4	100%	1	100%	64	100%	1	100%	70	100%

Men Who Have Sex with Men and Inject Drugs

During 2001–2005, 15 persons diagnosed with HIV/AIDS were reported to be MSM and also IDU. Persons with both characteristics may represent a unique population and are usually presented separately. During this time period, however, the characteristics of MSM and MSM/IDU cases appeared to be somewhat similar. All MSM/IDU cases diagnosed during 2001–2005 were White; the age distribution was similar to MSM non-IDU cases (Table 11).

Table 11. HIV/AIDS cases among MSM/IDU by age group and race/ethnicity—Idaho, 2001–2005

	White		TOTAL	
Age Group	N	%	N	%
13-19	0	0%	0	0%
20-29	5	33%	5	33%
30-39	6	40%	6	40%
40-49	2	13%	2	13%
50+	2	13%	2	13%
TOTAL	15	100%	15	100%

Injection Drug Users (Non-MSM)

Most Non-MSM IDUs diagnosed during 2001–2005 were males (Table 12). During this time period, most females diagnosed (83%) were aged 40 or older, whereas half of males were 40 or older. While 70% of cases were White, American Indian/Alaska Natives were overrepresented, making up a proportion of over 20%, although this is based on only 4 cases.

Table 12. HIV/AIDS cases among IDU (non-MSM) by sex, age group and race/ethnicity—Idaho, 2001–2005

		Race/ethnicity							
		Hispanic		AI/AN		White		TOTAL	
	Age Group	N	%	N	%	N	%	N	%
Males	13-19	0	-	0	0%	0	0%	0	0%
	20-29	0	-	0	0%	1	10%	1	8%
	30-39	0	-	1	50%	4	40%	5	42%
	40-49	0	-	1	50%	4	40%	5	42%
	50+	0	-	0	0%	1	10%	1	8%
	TOTAL	0	-	2	100%	10	100%	12	100%
Females	13-19	0	0%	0	0%	0	0%	0	0%
	20-29	0	0%	0	0%	0	0%	0	0%
	30-39	0	0%	0	0%	1	33%	1	17%
	40-49	0	0%	2	100%	1	33%	3	50%
	50+	1	100%	0	0%	1	33%	2	33%
	TOTAL	1	100%	2	100%	3	100%	6	100%
Total	13-19	0	0%	0	0%	0	0%	0	0%
	20-29	0	0%	0	0%	1	8%	1	6%
	30-39	0	0%	1	25%	5	38%	6	33%
	40-49	0	0%	3	75%	5	38%	8	44%
	50+	1	100%	0	0%	2	15%	3	17%
	TOTAL	1	100%	4	100%	13	100%	18	100%

Heterosexuals

More women than men reported heterosexual mode of exposure during 2001–2005 (Table 13). While the majority of cases were non-Hispanic Whites, persons of Hispanic race/ethnicity accounted for one fifth of cases, compared with a 9% proportion of Idaho's general population being of Hispanic ethnicity.

Table 13. Idaho HIV/AIDS cases with heterosexual mode of exposure by race/ethnicity and sex, 2001–2005

	Males		Females		Total	
Race/Ethnicity	N	%	N	%	N	%
Hispanic - any race	1	13%	3	25%	4	20%
American Indian/AK native	0	0%	0	0%	0	0%
Asian/Pacific Islander	0	0%	0	0%	0	0%
Black	1	13%	0	0%	1	5%
White	6	75%	9	75%	15	75%
Unknown	0	0%	0	0%	0	0%
TOTAL	8	100%	12	100%	20	100%

Sex with IDU and sex with someone with HIV/AIDS, are the most frequently reported partner risks for individuals with heterosexual mode of exposure (Table 14). This pattern holds true for both sexes. In fact, only one case had a different partner risk during the time period (sex with MSM). Heterosexual females are distributed toward younger age groups compared to males. Only one quarter of females were 40 or older, but in males, these ages accounted for three quarters of cases.

Table 14. Heterosexual mode of exposure HIV/AIDS cases by reported partner risk, age group, expanded mode of exposure, and sex, 2001–2005

		Reported partner risk							
		IDU		MSM		HIV/AIDS diagnosis		TOTAL	
	Age Group	N	%	N	%	N	%	N	%
Males	13-19	0	0%	N/A	-	0	0%	0	0%
	20-29	0	0%	N/A	-	2	67%	2	25%
	30-39	0	0%	N/A	-	0	0%	0	0%
	40-49	3	60%	N/A	-	0	0%	3	38%
	50+	2	40%	N/A	-	1	33%	3	38%
	TOTAL	5	100%	N/A	-	3	100%	8	100%
Females	13-19	0	0%	0	0%	0	0%	0	0%
	20-29	2	33%	0	0%	1	20%	3	25%
	30-39	3	50%	1	100%	2	40%	6	50%
	40-49	0	0%	0	0%	1	20%	1	8%
	50+	1	17%	0	0%	1	20%	2	17%
	TOTAL	6	100%	1	100%	5	100%	12	100%
Total	13-19	0	0%	0	0%	0	0%	0	0%
	20-29	2	18%	0	0%	3	38%	5	25%
	30-39	3	27%	1	100%	2	25%	6	30%
	40-49	3	27%	0	0%	1	13%	4	20%
	50+	3	27%	0	0%	2	25%	5	25%
	TOTAL	11	100%	1	100%	8	100%	20	100%

Women

Almost three quarters of the cases among women during 2001–2005 were 20-39 years old (Table 15). Of those with known risk, most had heterosexual mode of exposure and almost one third reported IDU risk. Non-White women are overrepresented among women diagnosed during the time frame compared with Idaho's population distribution (Table 16). Only 55% were White; one quarter were Hispanic. Comparatively, Idaho's general population is 89% White (non-Hispanic) and 9% Hispanic.

Table 15. HIV/AIDS in women (≥ 13 years) by age group and mode of exposure—Idaho, 2001–2005

	IDU		Heterosexual		Transfusion/ Transplant		Risk not specified		TOTAL	
Age Group	N	%	N	%	N	%	N	%	N	%
13-19	0	0%	0	0%	0	0%	0	0%	0	0%
20-29	1	17%	3	25%	1	100%	4	40%	9	31%
30-39	3	50%	6	50%	0	0%	3	30%	12	41%
40-49	2	33%	1	8%	0	0%	2	20%	5	17%
50+	0	0%	2	17%	0	0%	1	10%	3	10%
TOTAL	6	100%	12	100%	1	100%	10	100%	29	100%

Table 16. HIV/AIDS in women (≥ 13 years) by race/ethnicity and mode of exposure—Idaho, 2001–2005

	IDU		Heterosexual		Transfusion/ Transplant		Risk not specified		TOTAL	
Race/ Ethnicity	N	%	N	%	N	%	N	%	N	%
Hispanic	1	17%	3	25%	1	100%	3	30%	8	28%
AI/AN	2	33%	0	0%	0	0%	1	10%	3	10%
Black	0	0%	0	0%	0	0%	2	20%	2	7%
White	3	50%	9	75%	0	0%	4	40%	16	55%
TOTAL	6	100%	12	100%	1	100%	10	100%	29	100%

Youth (aged 13-24)

Fourteen percent of cases diagnosed during 2001–2005 were among youth. Most (70%) were males (Table 17). Of males, all were White. Among females, a large proportion were non-White. MSM is the most frequently reported mode of exposure for males; over two thirds of males were White and MSM. Heterosexual mode of exposure was the most frequently reported mode in females.

Table 17. HIV/AIDS cases among youth (aged 13-24 yrs) by sex, race/ethnicity, and mode of exposure—Idaho, 2001–2005

		MSM		IDU		MSM/ IDU		Hetero-sexual		Trans-fusion/ transplant		Risk not Specified		TOTAL	
	Race/Ethnicity	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Males	Hispanic – any race	0	0%	0	-	0	0%	0	-	0	-	0	0%	0	0%
	Black	0	0%	0	-	0	0%	0	-	0	-	0	0%	0	0%
	White	11	100%	1	-	2	100%	0	-	0	-	2	100%	16	100%
	TOTAL	11	100%	1	-	2	100%	0	-	0	-	2	100%	16	100%
Females	Hispanic – any race	N/A	-	0	0%	N/A	-	0	0%	1	100%	0	0%	1	14%
	Black	N/A	-	0	0%	N/A	-	0	0%	0	0%	2	100%	2	29%
	White	N/A	-	1	100%	N/A	-	3	100%		0%	0	0%	4	57%
	TOTAL	N/A	-	1	100%	N/A	-	3	100%	1	100%	2	100%	7	100%
TOTAL	Hispanic - any race	0	0%	0	0%	0	0%	0	0%	1	100%	0	0%	1	4%
	Black	0	0%	0	0%	0	0%	0	0%	0	0%	2	50%	2	9%
	White	11	100%	2	100%	2	100%	3	100%	0	0%	2	50%	20	87%
	TOTAL	11	100%	2	100%	2	100%	3	100%	1	100%	4	100%	23	100%

Public Health Districts

Cases diagnosed in Idaho during 2001–2005 were chosen for this section to describe the characteristics of the most recent cases in these geographic areas. In addition, tabulations for each district's "Presumed Living with HIV/AIDS" cases are shown to describe the potential burden in each area for HIV/AIDS care and potential for secondary transmission.

District 1

Table 18. Newly diagnosed HIV infections (including AIDS)—health district 1, 2001–2005

		Males		Females		Total	
		N	%	N	%	N	%
Age group	<13	0	0%	0	0%	0	0%
	13-19	0	0%	0	0%	0	0%
	20-29	2	13%	0	0%	2	13%
	30-39	2	13%	1	100%	3	19%
	40-49	6	40%	0	0%	6	38%
	50+	5	33%	0	0%	5	31%
	TOTAL	15	100%	1	100%	16	100%
Race/ Ethnicity	Hispanic	0	0%	0	0%	0	0%
	AI/AN	0	0%	0	0%	0	0%
	A/PI	0	0%	0	0%	0	0%
	Black	0	0%	0	0%	0	0%
	White	15	100%	1	100%	16	100%
	Unknown	0	0%	0	0%	0	0%
	TOTAL	15	100%	1	100%	16	100%
Exposure category	Adult						
	MSM	5	33%	N/A	-	5	31%
	IDU	2	13%	0	0%	2	13%
	MSM/IDU	2	13%	N/A	-	2	13%
	Hemophiliac	0	0%	0	0%	0	0%
	Heterosexual contact	3	20%	1	100%	4	25%
	Transfusion/transplant	0	0%	0	0%	0	0%
	Risk not specified	3	20%	0	0%	3	19%
	Pediatric						
	Mother with/at risk HIV	0	0%	0	0%	0	0%
	Other/undetermined	0	0%	0	0%	0	0%
	TOTAL	15	100%	1	100%	16	100%

Table 19. Number of persons presumed living with HIV/AIDS—health district 1, 2005

		Males		Females		Total	
		N	%	N	%	N	%
Age group	<13	0	0%	1	4%	1	1%
	13-19	0	0%	3	11%	3	3%
	20-29	2	3%	1	4%	3	3%
	30-39	11	14%	5	19%	16	16%
	40-49	37	49%	11	41%	48	47%
	50+	26	34%	6	22%	32	31%
	TOTAL	76	100%	27	100%	103	100%
Race/ Ethnicity	Hispanic	2	3%	1	4%	3	3%
	AI/AN	2	3%	0	0%	2	2%
	A/PI	0	0%	0	0%	0	0%
	Black	0	0%	2	7%	2	2%
	White	72	95%	24	89%	96	93%
	Unknown	0	0%	0	0%	0	0%
	TOTAL	76	100%	27	100%	103	100%
Exposure category	Adult						
	MSM	40	53%	N/A	-	40	39%
	IDU	13	17%	7	26%	20	19%
	MSM/IDU	9	12%	N/A	-	9	9%
	Hemophiliac	0	0%	0	0%	0	0%
	Heterosexual contact	7	9%	15	56%	22	21%
	Transfusion/transplant	0	0%	1	4%	1	1%
	Risk not specified	7	9%	0	0%	7	7%
	Pediatric						
	Mother with/at risk HIV	0	0%	4	15%	4	4%
	Other/undetermined	0	0%	0	0%	0	0%
	TOTAL	76	100%	27	100%	103	100%

District 2

Table 20. Newly diagnosed HIV infections (including AIDS)—health district 2, 2001–2005

		Males		Females		Total	
		N	%	N	%	N	%
Age group	<13	0	0%	0	0%	0	0%
	13-19	1	8%	0	0%	1	7%
	20-29	4	33%	1	50%	5	36%
	30-39	4	33%	1	50%	5	36%
	40-49	3	25%	0	0%	3	21%
	50+	0	0%	0	0%	0	0%
	TOTAL	12	100%	2	100%	14	100%
Race/ Ethnicity	Hispanic	0	0%	0	0%	0	0%
	AI/AN	1	8%	0	0%	1	7%
	A/PI	0	0%	0	0%	0	0%
	Black	1	8%	0	0%	1	7%
	White	10	83%	2	100%	12	86%
	Unknown	0	0%	0	0%	0	0%
	TOTAL	12	100%	2	100%	14	100%
Exposure category	Adult						
	MSM	6	50%	N/A	-	6	43%
	IDU	1	8%	0	0%	1	7%
	MSM/IDU	0	0%	N/A	-	0	0%
	Hemophiliac	0	0%	0	0%	0	0%
	Heterosexual contact	1	8%	2	100%	3	21%
	Transfusion/transplant	0	0%	0	0%	0	0%
	Risk not specified	4	33%	0	0%	4	29%
	Pediatric						
	Mother with/at risk HIV	0	0%	0	0%	0	0%
	Other/undetermined	0	0%	0	0%	0	0%
	TOTAL	12	100%	2	100%	14	100%

Table 21. Number of persons presumed living with HIV/AIDS—health district 2, 2005

		Males		Females		Total	
		N	%	N	%	N	%
Age group	<13	0	0%	0	0%	0	0%
	13-19	1	2%	0	0%	1	2%
	20-29	3	7%	1	13%	4	8%
	30-39	11	25%	1	13%	12	23%
	40-49	20	45%	6	75%	26	50%
	50+	9	20%	0	0%	9	17%
	TOTAL	44	100%	8	100%	52	100%
Race/ Ethnicity	Hispanic	1	2%	1	13%	2	4%
	AI/AN	1	2%	0	0%	1	2%
	A/PI	0	0%	0	0%	0	0%
	Black	2	5%	0	0%	2	4%
	White	40	91%	7	88%	47	90%
	Unknown	0	0%	0	0%	0	0%
	TOTAL	44	100%	8	100%	52	100%
Exposure category	Adult						
	MSM	16	36%	N/A	-	16	31%
	IDU	7	16%	3	38%	10	19%
	MSM/IDU	9	20%	N/A	-	9	17%
	Hemophiliac	2	5%	0	0%	2	4%
	Heterosexual contact	3	7%	4	50%	7	13%
	Transfusion/transplant	1	2%	0	0%	1	2%
	Risk not specified	6	14%	1	13%	7	13%
	Pediatric						
	Mother with/at risk HIV	0	0%	0	0%	0	0%
	Other/undetermined	0	0%	0	0%	0	0%
	TOTAL	44	100%	8	100%	52	100%

District 3

Table 22. Newly diagnosed HIV infections (including AIDS)—health district 3, 2001–2005

		Males		Females		Total	
		N	%	N	%	N	%
Age group	<13	0	0%	0	0%	0	0%
	13-19	0	0%	0	0%	0	0%
	20-29	3	19%	1	25%	4	20%
	30-39	6	38%	2	50%	8	40%
	40-49	6	38%	0	0%	6	30%
	50+	1	6%	1	25%	2	10%
	TOTAL	16	100%	4	100%	20	100%
Race/ Ethnicity	Hispanic	6	38%	3	75%	9	45%
	AI/AN	0	0%	0	0%	0	0%
	A/PI	0	0%	0	0%	0	0%
	Black	0	0%	0	0%	0	0%
	White	10	63%	1	25%	11	55%
	Unknown	0	0%	0	0%	0	0%
	TOTAL	16	100%	4	100%	20	100%
Exposure category	Adult						
	MSM	4	25%	N/A	-	4	20%
	IDU	0	0%	0	0%	0	0%
	MSM/IDU	2	13%	N/A	-	2	10%
	Hemophiliac	0	0%	0	0%	0	0%
	Heterosexual contact	0	0%	2	50%	2	10%
	Transfusion/transplant	0	0%	1	25%	1	5%
	Risk not specified	10	63%	1	25%	11	55%
	Pediatric						
	Mother with/at risk HIV	0	0%	0	0%	0	0%
	Other/undetermined	0	0%	0	0%	0	0%
	TOTAL	16	100%	4	100%	20	100%

Table 23. Number of persons presumed living with HIV/AIDS—health district 3, 2005

		Males		Females		Total	
		N	%	N	%	N	%
Age group	<13	0	0%	0	0%	0	0%
	13-19	0	0%	1	4%	1	1%
	20-29	6	6%	3	13%	9	8%
	30-39	23	25%	7	30%	30	26%
	40-49	45	48%	7	30%	52	45%
	50+	19	20%	5	22%	24	21%
	TOTAL	93	100%	23	100%	116	100%
Race/ Ethnicity	Hispanic	24	26%	9	39%	33	28%
	AI/AN	0	0%	1	4%	1	1%
	A/PI	0	0%	0	0%	0	0%
	Black	1	1%	1	4%	2	2%
	White	67	72%	12	52%	79	68%
	Unknown	1	1%	0	0%	1	1%
	TOTAL	93	100%	23	100%	116	100%
Exposure category	Adult						
	MSM	37	40%	N/A	-	37	32%
	IDU	15	16%	3	13%	18	16%
	MSM/IDU	15	16%	N/A	-	15	13%
	Hemophiliac	2	2%	0	0%	2	2%
	Heterosexual contact	2	2%	12	52%	14	12%
	Transfusion/transplant	1	1%	2	9%	3	3%
	Risk not specified	21	23%	5	22%	26	22%
	Pediatric						
	Mother with/at risk HIV	0	0%	1	4%	1	1%
	Other/undetermined	0	0%	0	0%	0	0%
	TOTAL	93	100%	23	100%	116	100%

District 4

Table 24. Newly diagnosed HIV infections (including AIDS)—health district 4, 2001–2005

		Males		Females		Total	
		N	%	N	%	N	%
Age group	<13	0	0%	1	8%	1	1%
	13-19	1	1%	0	0%	1	1%
	20-29	16	24%	4	31%	20	25%
	30-39	25	37%	3	23%	28	35%
	40-49	18	26%	4	31%	22	27%
	50+	8	12%	1	8%	9	11%
	TOTAL	68	100%	13	100%	81	100%
Race/ Ethnicity	Hispanic	2	3%	1	8%	3	4%
	AI/AN	1	1%	0	0%	1	1%
	A/PI	2	3%	0	0%	2	2%
	Black	2	3%	2	15%	4	5%
	White	60	88%	10	77%	70	86%
	Unknown	1	1%	0	0%	1	1%
	TOTAL	68	100%	13	100%	81	100%
Exposure category	Adult						
	MSM	42	62%	N/A	-	42	52%
	IDU	6	9%	4	31%	10	12%
	MSM/IDU	6	9%	N/A	-	6	7%
	Hemophiliac	0	0%	0	0%	0	0%
	Heterosexual contact	2	3%	4	31%	6	7%
	Transfusion/transplant	1	1%	0	0%	1	1%
	Risk not specified	11	16%	4	31%	15	19%
	Pediatric						
	Mother with/at risk HIV	0	0%	0	0%	0	0%
	Other/undetermined	0	0%	1	8%	1	1%
	TOTAL	68	100%	13	100%	81	100%

Table 25. Number of persons presumed living with HIV/AIDS—health district 4, 2005

		Males		Females		Total	
		N	%	N	%	N	%
Age group	<13	0	0%	1	2%	1	0%
	13-19	1	0%	0	0%	1	0%
	20-29	18	5%	6	13%	24	6%
	30-39	77	23%	11	23%	88	23%
	40-49	167	50%	22	47%	189	50%
	50+	69	21%	7	15%	76	20%
	TOTAL	332	100%	47	100%	379	100%
Race/ Ethnicity	Hispanic	24	7%	3	6%	27	7%
	AI/AN	10	3%	0	0%	10	3%
	A/PI	4	1%	0	0%	4	1%
	Black	17	5%	7	15%	24	6%
	White	276	83%	37	79%	313	83%
	Unknown	1	0%	0	0%	1	0%
	TOTAL	332	100%	47	100%	379	100%
Exposure category	Adult						
	MSM	212	64%	N/A	-	212	56%
	IDU	32	10%	20	43%	52	14%
	MSM/IDU	35	11%	N/A	-	35	9%
	Hemophiliac	0	0%	0	0%	0	0%
	Heterosexual contact	20	6%	17	36%	37	10%
	Transfusion/transplant	5	2%	1	2%	6	2%
	Risk not specified	27	8%	8	17%	35	9%
	Pediatric						
	Mother with/at risk HIV	1	0%	0	0%	1	0%
	Other/undetermined	0	0%	1	2%	1	0%
	TOTAL	332	100%	47	100%	379	100%

District 5

Table 26. Newly diagnosed HIV infections (including AIDS)—health district 5, 2001–2005

		Males		Females		Total	
		N	%	N	%	N	%
Age group	<13	0	0%	0	0%	0	0%
	13-19	0	0%	0	0%	0	0%
	20-29	2	22%	2	33%	4	27%
	30-39	2	22%	2	33%	4	27%
	40-49	5	56%	1	17%	6	40%
	50+	0	0%	1	17%	1	7%
	TOTAL	9	100%	6	100%	15	100%
Race/ Ethnicity	Hispanic	1	11%	4	67%	5	33%
	AI/AN	1	11%	0	0%	1	7%
	A/PI	0	0%	0	0%	0	0%
	Black	0	0%	0	0%	0	0%
	White	6	67%	2	33%	8	53%
	Unknown	1	11%	0	0%	1	7%
	TOTAL	9	100%	6	100%	15	100%
Exposure category	Adult						
	MSM	2	22%	N/A	-	2	13%
	IDU	2	22%	0	0%	2	13%
	MSM/IDU	2	22%	N/A	-	2	13%
	Hemophiliac	0	0%	0	0%	0	0%
	Heterosexual contact	0	0%	3	50%	3	20%
	Transfusion/transplant	0	0%	0	0%	0	0%
	Risk not specified	3	33%	3	50%	6	40%
	Pediatric						
	Mother with/at risk HIV	0	0%	0	0%	0	0%
	Other/undetermined	0	0%	0	0%	0	0%
	TOTAL	9	100%	6	100%	15	100%

Table 27. Number of persons presumed living with HIV/AIDS—health district 5, 2005

		Males		Females		Total	
		N	%	N	%	N	%
Age group	<13	0	0%	0	0%	0	0%
	13-19	0	0%	0	0%	0	0%
	20-29	5	8%	3	13%	8	9%
	30-39	12	18%	8	33%	20	22%
	40-49	31	48%	7	29%	38	43%
	50+	17	26%	6	25%	23	26%
	TOTAL	65	100%	24	100%	89	100%
Race/ Ethnicity	Hispanic	10	15%	5	21%	15	17%
	AI/AN	2	3%	0	0%	2	2%
	A/PI	0	0%	0	0%	0	0%
	Black	1	2%	0	0%	1	1%
	White	52	80%	19	79%	71	80%
	Unknown	0	0%	0	0%	0	0%
	TOTAL	65	100%	24	100%	89	100%
Exposure category	Adult						
	MSM	36	55%	N/A	-	36	40%
	IDU	11	17%	4	17%	15	17%
	MSM/IDU	3	5%	N/A	-	3	3%
	Hemophiliac	0	0%	0	0%	0	0%
	Heterosexual contact	7	11%	14	58%	21	24%
	Transfusion/transplant	0	0%	0	0%	0	0%
	Risk not specified	8	12%	6	25%	14	16%
	Pediatric						
	Mother with/at risk HIV	0	0%	0	0%	0	0%
	Other/undetermined	0	0%	0	0%	0	0%
	TOTAL	65	100%	24	100%	89	100%

District 6

Table 28. Newly diagnosed HIV infections (including AIDS)—health district 6, 2001–2005

		Males		Females		Total	
		N	%	N	%	N	%
Age group	<13	0	0%	0	0%	0	0%
	13-19	0	0%	0	0%	0	0%
	20-29	5	50%	1	25%	6	43%
	30-39	3	30%	3	75%	6	43%
	40-49	2	20%	0	0%	2	14%
	50+	0	0%	0	0%	0	0%
	TOTAL	10	100%	4	100%	14	100%
Race/ Ethnicity	Hispanic	1	10%	0	0%	1	7%
	AI/AN	1	10%	3	75%	4	29%
	A/PI	0	0%	0	0%	0	0%
	Black	0	0%	1	25%	1	7%
	White	8	80%	0	0%	8	57%
	Unknown	0	0%	0	0%	0	0%
	TOTAL	10	100%	4	100%	14	100%
Exposure category	Adult						
	MSM	5	50%	N/A	-	5	36%
	IDU	1	10%	2	50%	3	21%
	MSM/IDU	2	20%	N/A	-	2	14%
	Hemophiliac	0	0%	0	0%	0	0%
	Heterosexual contact	2	20%	0	0%	2	14%
	Transfusion/transplant	0	0%	0	0%	0	0%
	Risk not specified	0	0%	2	50%	2	14%
	Pediatric						
	Mother with/at risk HIV	0	0%	0	0%	0	0%
	Other/undetermined	0	0%	0	0%	0	0%
	TOTAL	10	100%	4	100%	14	100%

Table 29. Number of persons presumed living with HIV/AIDS—health district 6, 2005

		Males		Females		Total	
		N	%	N	%	N	%
Age group	<13	0	0%	0	0%	0	0%
	13-19	0	0%	1	6%	1	1%
	20-29	3	5%	6	35%	9	13%
	30-39	19	35%	4	24%	23	32%
	40-49	22	40%	6	35%	28	39%
	50+	11	20%	0	0%	11	15%
	TOTAL	55	100%	17	100%	72	100%
Race/ Ethnicity	Hispanic	5	9%	2	12%	7	10%
	AI/AN	3	5%	3	18%	6	8%
	A/PI	0	0%	0	0%	0	0%
	Black	3	5%	3	18%	6	8%
	White	44	80%	9	53%	53	74%
	Unknown	0	0%	0	0%	0	0%
	TOTAL	55	100%	17	100%	72	100%
Exposure category	Adult						
	MSM	30	55%	N/A	-	30	42%
	IDU	5	9%	5	29%	10	14%
	MSM/IDU	7	13%	N/A	-	7	10%
	Hemophiliac	0	0%	0	0%	0	0%
	Heterosexual contact	6	11%	8	47%	14	19%
	Transfusion/transplant	1	2%	0	0%	1	1%
	Risk not specified	6	11%	3	18%	9	13%
	Pediatric						
	Mother with/at risk HIV	0	0%	1	6%	1	1%
	Other/undetermined	0	0%	0	0%	0	0%
	TOTAL	55	100%	17	100%	72	100%

District 7

Table 30. Newly diagnosed HIV infections (including AIDS)—health district 7, 2001–2005

		Males		Females		Total	
		N	%	N	%	N	%
Age group	<13	0	0%	0	-	0	0%
	13-19	0	0%	0	-	0	0%
	20-29	2	29%	0	-	2	29%
	30-39	4	57%	0	-	4	57%
	40-49	1	14%	0	-	1	14%
	50+	0	0%	0	-	0	0%
	TOTAL	7	100%	0	-	7	100%
Race/ Ethnicity	Hispanic	0	0%	0	-	0	0%
	AI/AN	0	0%	0	-	0	0%
	A/PI	0	0%	0	-	0	0%
	Black	0	0%	0	-	0	0%
	White	7	100%	0	-	7	100%
	Unknown	0	0%	0	-	0	0%
	TOTAL	7	100%	0	-	7	100%
Exposure category	Adult						
	MSM	6	86%	N/A	-	6	86%
	IDU	0	0%	0	-	0	0%
	MSM/IDU	1	14%	N/A	-	1	14%
	Hemophiliac	0	0%	0	-	0	0%
	Heterosexual contact	0	0%	0	-	0	0%
	Transfusion/transplant	0	0%	0	-	0	0%
	Risk not specified	0	0%	0	-	0	0%
	Pediatric				-	0	
	Mother with/at risk HIV	0	0%	0	-	0	0%
	Other/undetermined	0	0%	0	-	0	0%
	TOTAL	7	100%	0	-	7	100%

Table 31. Number of persons presumed living with HIV/AIDS—health district 7, 2005

		Males		Females		Total	
		N	%	N	%	N	%
Age group	<13	0	0%	0	0%	0	0%
	13-19	0	0%	0	0%	0	0%
	20-29	2	5%	1	9%	3	5%
	30-39	16	36%	3	27%	19	35%
	40-49	18	41%	6	55%	24	44%
	50+	8	18%	1	9%	9	16%
	TOTAL	44	100%	11	100%	55	100%
Race/ Ethnicity	Hispanic	4	9%	1	9%	5	9%
	AI/AN	0	0%	0	0%	0	0%
	A/PI	0	0%	0	0%	0	0%
	Black	5	11%	0	0%	5	9%
	White	35	80%	10	91%	45	82%
	Unknown	0	0%	0	0%	0	0%
	TOTAL	44	100%	11	100%	55	100%
Exposure category	Adult						
	MSM	26	59%	N/A	-	26	47%
	IDU	2	5%	3	27%	5	9%
	MSM/IDU	5	11%	N/A	-	5	9%
	Hemophiliac	0	0%	1	9%	1	2%
	Heterosexual contact	4	9%	5	45%	9	16%
	Transfusion/transplant	1	2%	0	0%	1	2%
	Risk not specified	6	14%	2	18%	8	15%
	Pediatric						
	Mother with/at risk HIV	0	0%	0	0%	0	0%
	Other/undetermined	0	0%	0	0%	0	0%
	TOTAL	44	100%	11	100%	55	100%

What are the indicators of risk for HIV and AIDS in the population in Idaho?

The persons most likely to become infected with HIV are those who engage in high-risk behaviors and who live in communities where HIV prevalence is high. To help understand the differing risks for HIV infection in Idaho, this section examines the other data available that indicates HIV high-risk behaviors in Idaho.

Sexually Transmitted Diseases

Sexually transmitted disease (STD) data can be used as indicators of high-risk unprotected sexual behavior which is associated with an increased risk of HIV infection. In addition, some STDs produce lesions which can facilitate the transmission of HIV.

Chlamydia

Idaho's chlamydia cases and rates show an increasing trend over the last five years (Figure 8).

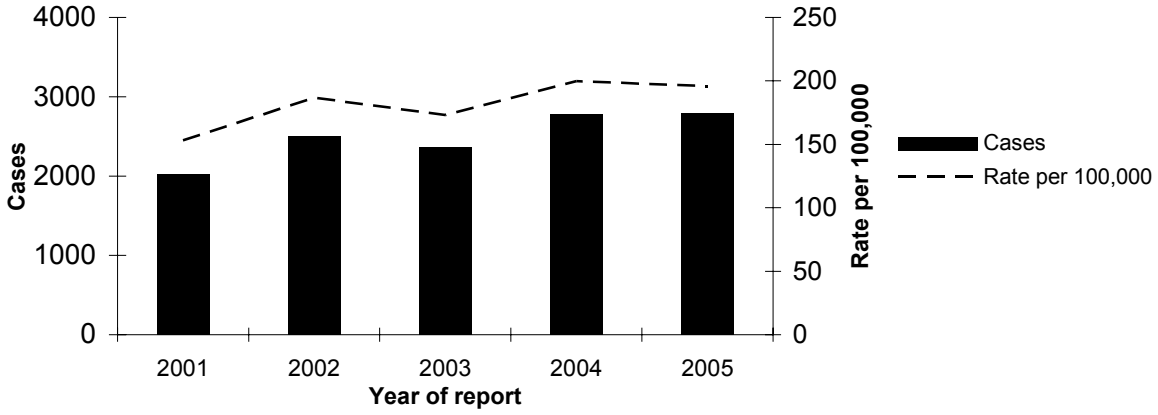

Figure 8. Chlamydia case and rate trend—Idaho, 2001–2005

Females are reported with chlamydia at a higher rate than males in Idaho (Figure 9). Rates in females increased over the past five years, while the rate in males remained relatively even.

Much of the difference between reported cases in females and males may be explained by chlamydia screening practices. In order to prevent complications leading to infertility, the Public Health Service Task Force recommends universal screening for chlamydia in sexually active females aged 15-24 years of age. Older females are screened based upon self-reported sexual risk behavior, epidemiologic linkages to positive cases and/or symptomology. Men are usually tested only if symptomatic.

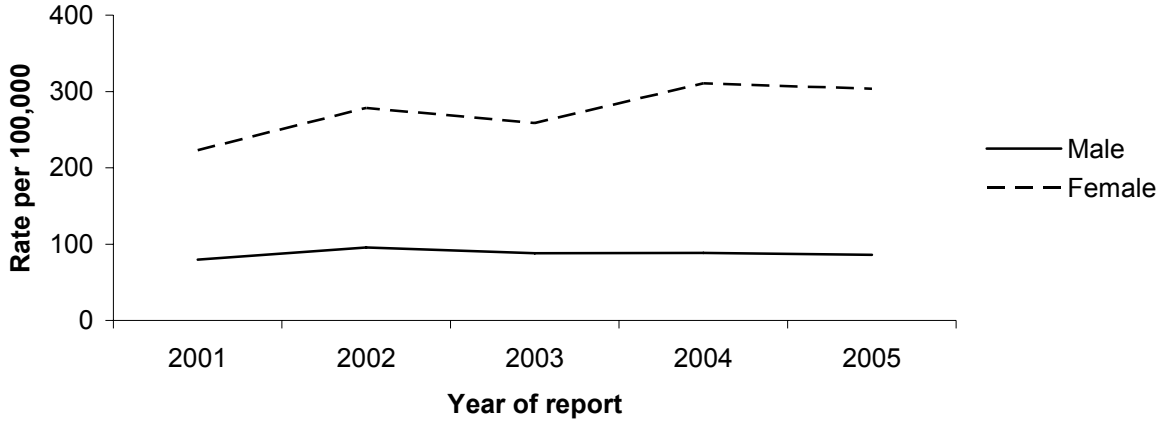

Figure 9. Chlamydia rate trend by sex—Idaho, 2001–2005

Ninety-four percent of chlamydia reports during 2001–2005 were in persons 15-34 years old. The 20-24 year age group is reported with chlamydia at a higher rate than other age groups (Figure 10). Rates among 15-19 year olds are also high in comparison to other age groups.

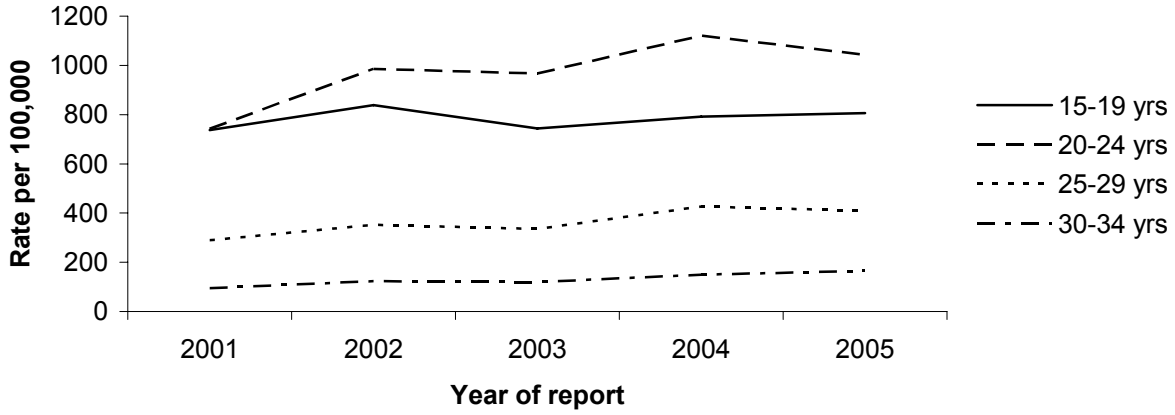

Figure 10. Chlamydia rate trend by selected age group—Idaho, 2001–2005

Persons of Hispanic ethnicity have a higher reported rate than persons of non-Hispanic ethnicity (Figure 11). However, caution should be used for analyzing racial and ethnic data for reported chlamydia cases since 37% of reported cases during 2001–2005 were of unknown ethnicity.

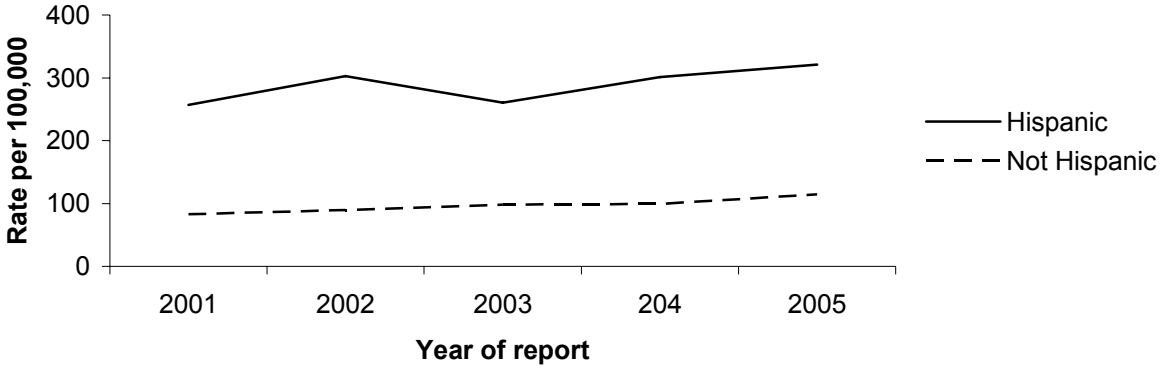

Figure 11. Chlamydia rate trend by ethnicity—Idaho, 2001–2005

Blacks are reported with chlamydia at a consistently higher rate than other races in Idaho (Figure 12), with total cases each year ranging from 34 in 2001 to 60 in 2002. Whites are reported at the lowest rate, although Whites make up 73% of the average number of cases with known race/ethnicity. Again, caution should be used when interpreting these rates since 28% of reported cases in the years 2001 – 2005 were of unknown race.

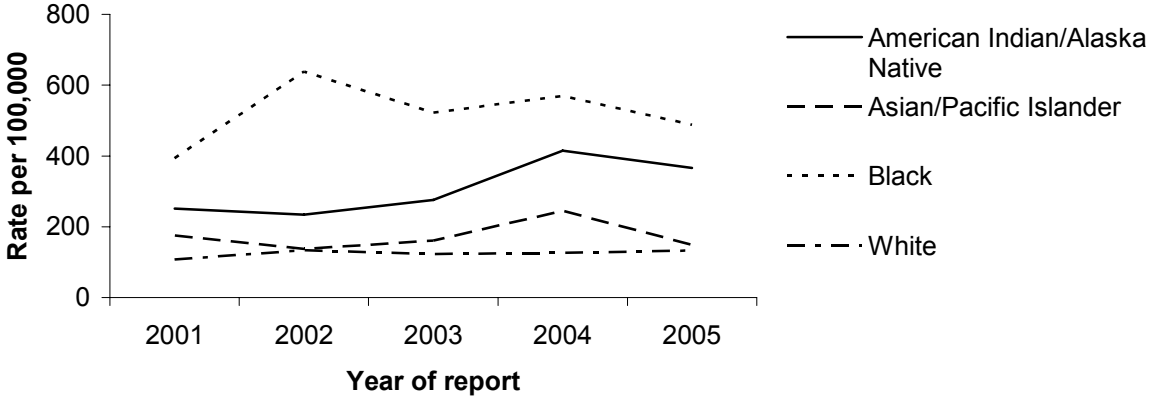

Figure 12. Chlamydia rate trend by race—Idaho, 2001–2005

<u>Gonorrhea</u>

Idaho's gonorrhea cases and rates show a variable but upward overall trend over the last 5 years (Figure 13). Total cases reported from 2001–2005 ranged from 68 in 2003 to 119 in 2005. Rates increased from 5.8 to 8.3 per 100,000 over the time period, a 44% increase.

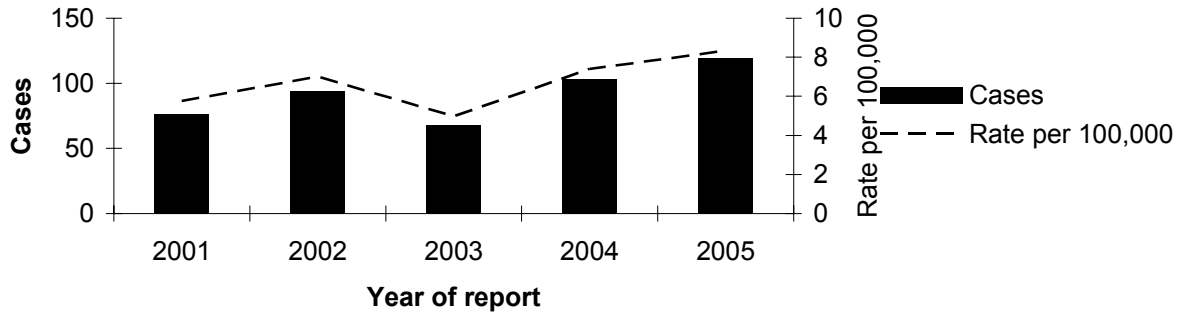

Figure 13. Gonorrhea case and rate trend—Idaho, 2001–2005

Females are usually reported with gonorrhea at a relatively similar rate as males, but in 2003 and 2004, this was not the case (Figure 14). Reasons for the decrease in women are unknown to OEFP at this time, but by 2005, the rates were again similar.

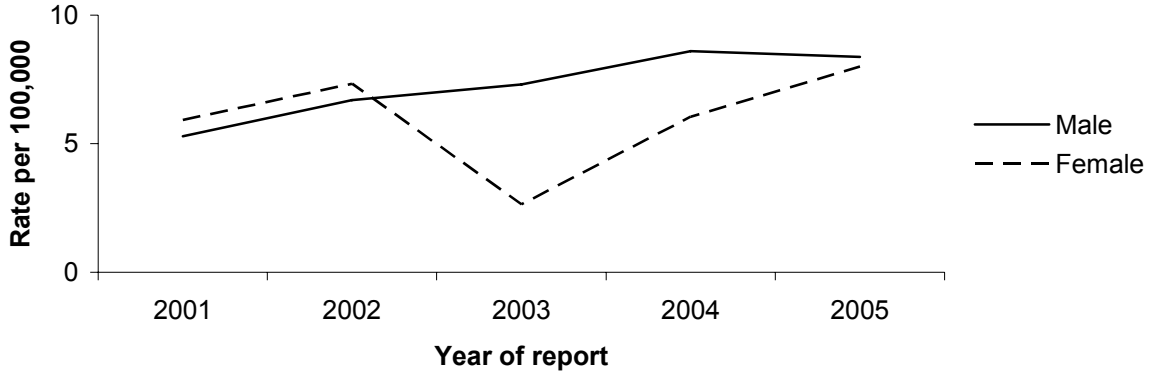

Figure 14. Gonorrhea rate trend by sex—Idaho, 2001–2005

Age groups affected by gonorrhea are similar to those affected by chlamydia; however the rates are less skewed toward the younger age groups (Figure 15). Eighty-two percent of cases during 2001–2005 were among 15-29 year olds. The highest rates are in 20-24 year olds.

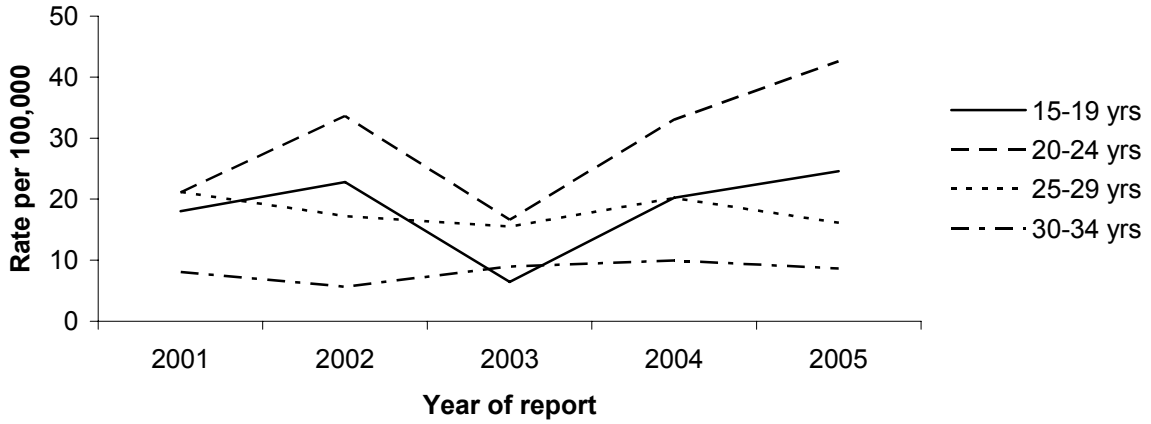

Figure 15. Gonorrhea rate trend by selected age group—Idaho, 2001–2005

The rate among both Hispanics and non-Hispanics has increased overall during the most recent 5-year time period after a temporary decrease among Hispanics during 2002-2003 (Figure 16). However, caution should be used when interpreting rates of gonorrhea based on ethnicity since 41% of reported cases in the years 2001–2005 were of unknown ethnicity.

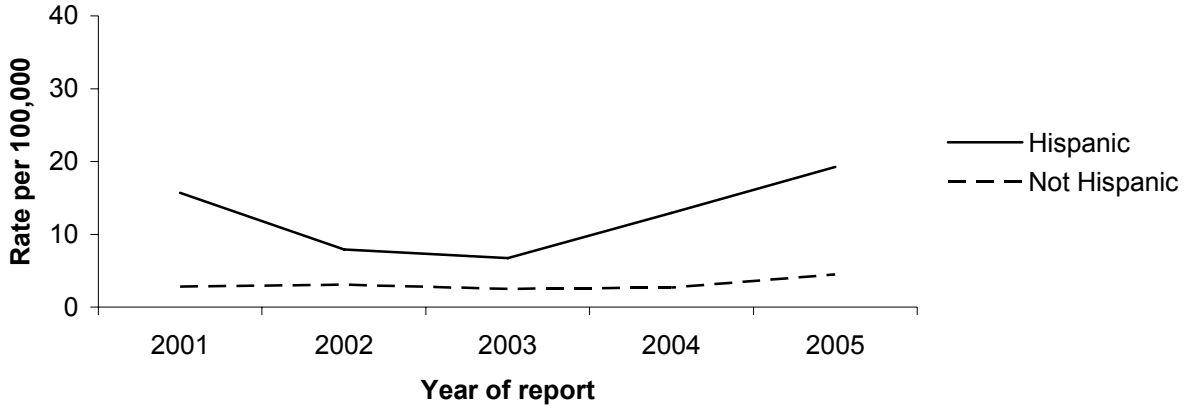

Figure 16. Gonorrhea rate trend by ethnicity—Idaho, 2001–2005

Among reports of known race during 2001–2005, most (88%) of cases were White. The rate of reported gonorrhea during the time period was highest among Blacks except for 2005 (Figure 17).. Caution should be used when interpreting rates of gonorrhea based on race since 36% of cases reported during 1999 – 2003 were of unknown race.

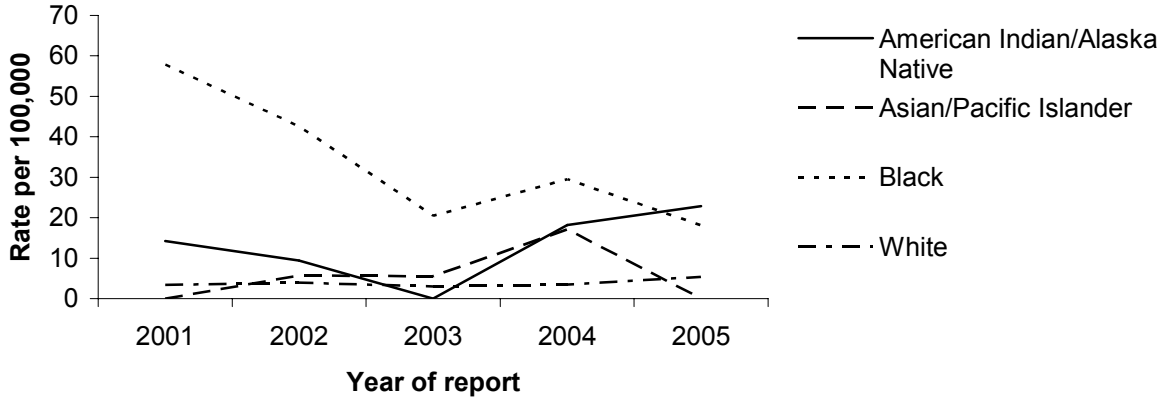

Figure 17. Gonorrhea rate trend by race—Idaho, 2001–2005

Syphilis

Outbreaks of syphilis among MSM have been reported in several U.S. cities in recent years, and are believed to be largely responsible for the increasing national syphilis rate. Recent CDC research suggests that more than 60 percent of all primary and secondary (P&S) syphilis cases in the U.S. reported in 2003 occurred among MSM. However in Idaho, this pattern hasn't been observed.

In Idaho, early syphilis (<1 year duration) cases have increased dramatically from 2001–2005 (Figure 18). This increase is considered a statewide syphilis outbreak with the majority of cases detected in southwestern Idaho. The number of cases decreased in 2005 in response to outbreak response measures by OEFP and local health departments.

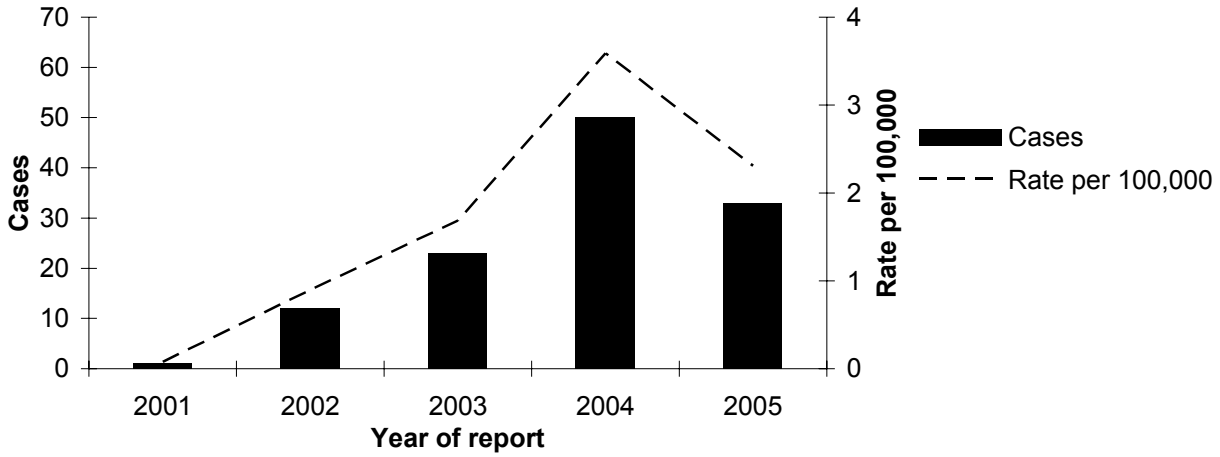

Figure 18. Early syphilis case and rate trend—Idaho, 2001–2005

The majority of this increase is being seen in Southwest District, in Idaho's southwest region. Over 2/3 of cases (n=80/119, 67%) during 2001–2005 were reported among residents of Southwest District (Figure 19).

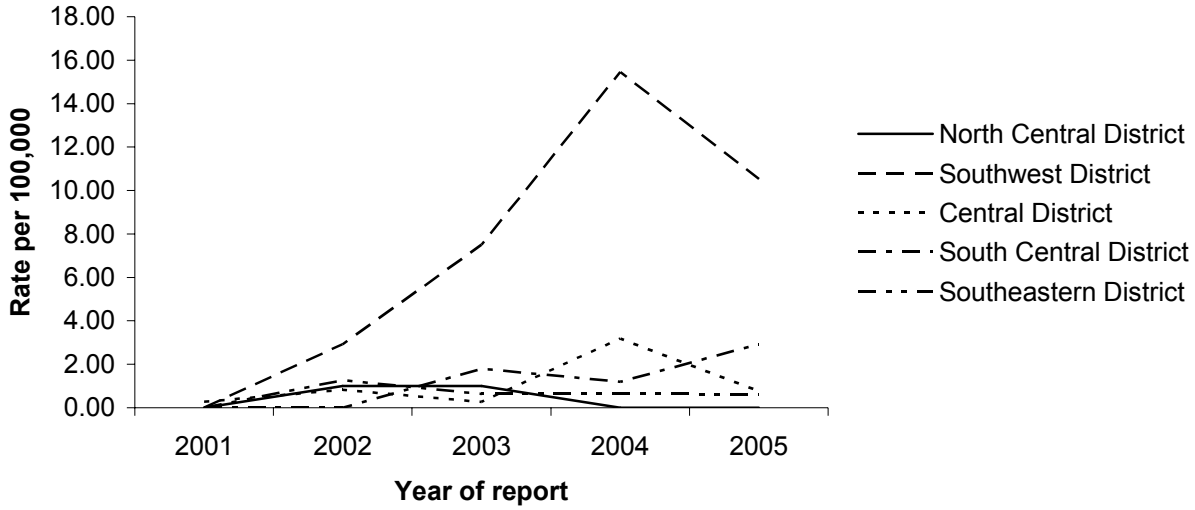

Figure 19. Early syphilis rate trend by health district—Idaho, 2001–2005

Because early syphilis cases in Idaho are investigated and most are interviewed, ethnicity is usually known (92%). The majority of cases reported during 2002 and 2003 were among persons of Hispanic/Latino ethnicity (n=77/119, 65%). This represents a disproportionate impact on Idaho's Hispanic population as a whole, which accounts for just 9% of Idaho's population.

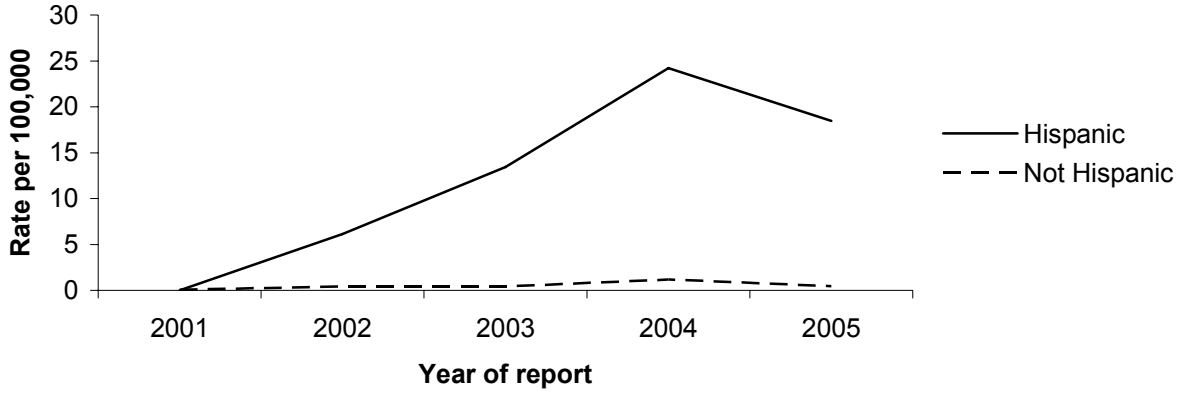

Figure 20. Early syphilis rate trend by ethnicity—Idaho, 2001–2005

Another striking characteristic of Idaho's early syphilis cases during 2001–2005 is age at diagnosis. Two thirds of cases were diagnosed in individuals in their 20s (n=79/119, 66%); an additional 15 cases were from the 15-19 year age group.

Among early syphilis cases interviewed in 2002 and 2003, heterosexual activity was the most reported risk factor by both males and females (Table 32), in contrast to national trends.

Table 32. Frequency of reported risks among interviewed early syphilis cases by report year—Idaho, 2002–2005

Patient Sex	Risk	Number of cases
Male	Heterosexual sex with IDU	2
	Sex for drugs/money	3
	Sex with female	48
	Sex with male	9
	Used IV drugs	6
Female	Heterosexual sex with MSM	1
	Heterosexual sex with IDU	9
	Sex for drugs/money	1
	Sex with female	4
	Sex with male	45
	Used IV drugs	11

Caution is urged when weighing syphilis outbreak information as an indicator of risk behavior, since outbreaks do not necessarily illustrate a shift in risk behavior when the condition is normally reported at a low frequency.

HIV Testing

Testing increased at IDHW-funded testing sites over 2001–2005 from roughly 2500 to 3000 tests per year (Figure 21). Counseling and testing sites are located within each district health

department location and selected alternative test site locations within all district health department geographic regions.

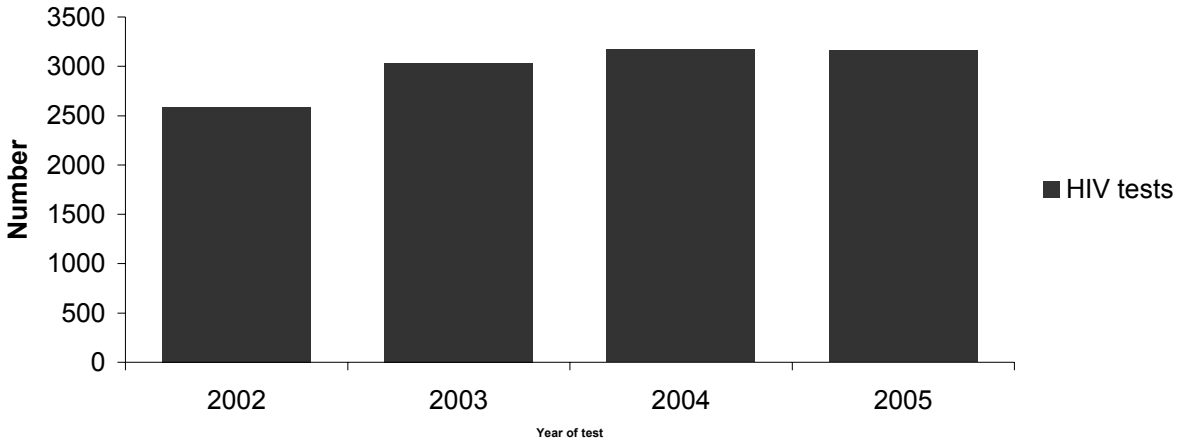

Figure 21. HIV tests through IDHW-funded HIV counseling and testing sites—Idaho, 2002–2005

Males and females were tested in relatively equal numbers during 2001–2005 (Table 33). However, tests in males were positive at twice the rate of females.

Table 33. HIV testing and positivity of tests at counseling and testing sites by sex—Idaho, 2002–2005

	Tests	Positive Tests	
Sex	N	N	% positive
Male	6097	37	0.6%
Female	5780	16	0.3%
TOTAL	11950	54	0.5%

Most tests and positive results were reported in Whites, but the percent of positive tests was highest among Blacks (Table 34).

Table 34. HIV testing and positivity of tests at counseling and testing sites by race/ethnicity—Idaho, 2002–2005

	Tests	Positive Tests	
Race/ ethnicity	N	N	% positive
White	10297	41	0.4%
Black	197	4	2.0%
Hispanic	1030	7	0.7%
All others	426	2	0.5%
TOTAL	11950	54	0.5%

The highest number of tests was submitted for persons aged 20-29 years, but the higher rate of positive tests was in age groups 30 and over (Table 35).

Table 35. HIV testing and positivity of tests at counseling and testing sites by age group—Idaho, 2002–2005

	Tests	Positive Tests	
Age group	N	N	% positive
< 13	36	0	0.0%
13-19	2141	3	0.1%
20-29	5377	14	0.3%
30-39	2213	21	0.9%
40-49	1442	12	0.8%
>= 50	609	4	0.7%
Not Spec.	132	0	0.0%
TOTAL	11950	54	0.5%

Persons reporting both MSM and IDU had the highest percentage of positives based on only 119 tests (Table 36). MSM (non-IDU) had a high percentage of positives and had the most positive results. Most tests were done for people with a sex partner at risk for HIV.

Table 36. HIV testing and positivity of tests at counseling and testing sites by risk category —Idaho, 2002–2005

	Tests	Positive Tests	
Risk category	N	N	% positive
MSM/IDU	119	3	2.5%
MSM	1103	25	2.3%
IDU (Hetsx)	1752	6	0.3%
Sex partner at risk	2471	8	0.3%
STD diagnosis	1478	2	0.1%
Sex while using non-injection drugs	1891	1	0.1%
No acknowledged risk	976	0	0.0%
Heterosexual, no other risk	1658	6	0.4%
All others	502	3	0.6%
TOTAL	11950	54	0.5%

Behavioral Risk Factor Surveillance Survey (BRFSS)

The latest BRFSS survey was conducted in 2005 by random telephone survey. Respondents totaled 5,734. Data were released in 2006. In relation to HIV/AIDS risk behavior, Idahoans 18-65 years of age were interviewed in each health district. Not all participants answered each question.

Almost one third (32%) of respondents had been tested for HIV in the past. Thirty-eight percent of 1,319 respondents were tested at their private doctor or HMO, 25% at a clinic, and 20% at a hospital. All other venues accounted for the remaining 17%.

Four percent of 4,236 respondents indicated risks for HIV, including injection drug use, treatment for STD, sex for money or drugs, or anal sex without condoms within the past year.

Youth Risk Behavior Survey (YRBS)

The YRBS is a self-administered questionnaire that is given to a representative sample of students in grades 9 through 12 at the state and local levels. The objective is to monitor behaviors that contribute to the leading causes of mortality, morbidity, and social problems among youth and young adults. The Idaho Department of Education conducted the YRBS survey during the Spring 2005 school semester. Similar surveys were conducted in 1991, 1993, 1995, 2001, and 2003.

In relation to HIV risk behavior, data indicate that 1.8% of high school students have used a needle to inject an illegal drug into their body at least once in their lives (Table 37). Overall, eleventh 11th grade students reported the highest proportion of ever injecting drugs.

Table 37. Percentage of students who reported using a needle to inject any illegal drug into their body one or more times during their life—Idaho, 2005

Grade	Total	Female	Male
9th	1.2%	0.8%	1.4%
10th	1.2%	0.6%	1.7%
11th	2.8%	2.7%	2.8%
12th	1.8%	0.6%	3.0%
Idaho Overall	1.8%	1.2%	2.3%
U.S. Overall	3.2%	2.5%	3.8%

Source: Results of the 2003 Idaho Youth Risk Behavior Survey and the 2002 School Health Education Profile

Data also indicate that 36.4% of Idaho high school students have had sexual intercourse (Table 38), compared to 46.7% nationwide. In all but the 9th grade, females report a higher proportion of ever having had sexual intercourse than males.

Table 38. Percentage of students who reported ever having sexual intercourse—Idaho, 2005

Grade	Total	Female	Male
9th	28.2%	23.5%	32.7%
10th	33.1%	33.8%	32.5%
11th	46.6%	51.0%	42.4%
12th	47.5%	52.1%	42.7%
Idaho Overall	36.4%	39.5%	37.4%
U.S. Overall	46.7%	45.3%	48.0%

Source: Results of the 2003 Idaho Youth Risk Behavior Survey and the 2002 School Health Education Profile

According to YRBS results, while the overall proportion of students who reported having had sexual intercourse before age 13 is below the national proportion, almost three times the proportion of 9th grade students than 12th grade students reported sexual intercourse for the first time before the age of 13 (Table 39). The proportion is greater with each younger age group. This suggests the initiation of sexual intercourse is beginning to occur more frequently at a younger age (<13 years) in Idaho.

Table 39. Percentage of students who reported sexual intercourse for the first time before age 13—Idaho, 2005

Grade	Total	Female	Male
9th	10.7%	7.0%	14.3%
10th	7.0%	4.7%	9.4%
11th	4.6%	3.2%	5.9%
12th	3.5%	1.6%	5.3%
Idaho Overall	6.7%	4.2%	9.0%
U.S. Overall	7.4%	4.2%	10.4%

Source: Results of the 2003 Idaho Youth Risk Behavior Survey and the 2002 School Health Education Profile

Appendixes

Appendix A. Data Sources - Strengths and Weaknesses
Appendix B. Trend Tables
Appendix C. Planning Group Epidemiologic Profile Feedback Form
Appendix D. Glossary

Appendix A: Data Sources - Strengths and Weaknesses

AIDS Surveillance

Overview: AIDS is a reportable condition in all states and territories. AIDS cases, reportable since the early 1980s, have been defined according to the prevailing CDC surveillance case definition (last revised in 1993). The AIDS surveillance system was established to monitor incidence and the demographic profile of AIDS, describe the modes of HIV transmission among persons with a diagnosis of AIDS, guide the development and implementation of public health intervention and prevention programs, and assist in the assessment of the efficacy of public health interventions. AIDS surveillance data are also used to allocate resources for Titles I and II of the Ryan White CARE Act. AIDS case reporting is mandated in Idaho by state law.

State and local health departments actively solicit disease reports from health care providers and laboratories. Standardized case report forms are used to collect sociodemographic information, mode of exposure, laboratory and clinical information, vital status, and referrals for treatment or services.

Population: All persons whose conditions meet the 1993 CDC AIDS surveillance case definition

Strengths: The only source of AIDS information that is available in all areas (states), these data reflect the effect of AIDS in Idaho and each health district and the trends of the epidemic in these areas. AIDS surveillance has been determined to be >85% complete, meaning that although most AIDS cases have been reported, a small proportion are not. The data include all demographic groups (age, race/ethnicity, gender).

Limitations: Because of the prolonged and variable period from infection to the development of AIDS, trends in AIDS surveillance do not represent recent HIV infections. Asymptomatic HIV-infected persons are also not represented by AIDS case data. In addition, physician willingness to test and lack of awareness or fear in persons may limit their interest or willingness to get tested testing may reduce number of cases diagnosed and reported. Further, the widespread use of highly active antiretroviral therapy complicates the interpretation of AIDS case surveillance data and estimation of the HIV/AIDS epidemic in an area. Newly reported AIDS cases may reflect treatment failures or the failure of the health care system to halt the progression of HIV infection to AIDS. AIDS cases represent late-stage HIV infections.

HIV Surveillance

Overview: Reporting of HIV infections to local health authorities as an integral part of AIDS surveillance activities has been recommended by CDC and other professional organizations since HIV was identified and a test for HIV was licensed. As part of ongoing active HIV surveillance, state and local health departments educate providers on their reporting responsibilities, establish active surveillance sites, establish liaisons with laboratories conducting CD4+ T-lymphocyte cell analysis and enzyme immunoassay and Western blot testing and follow-up of HIV cases of epidemiologic importance. HIV case reporting is mandated in Idaho by state law.

Population: All persons who test positive for HIV

Strengths: HIV surveillance data, compared with AIDS surveillance data, represent more recent infection. According to state evaluations, HIV infection reporting is estimated to be >85% complete for persons who have tested positive for HIV. HIV surveillance provides a minimum estimate of the number of persons known to be HIV infected and reported to the health department, may identify emerging patterns of transmission, and can be used to detect trends in HIV infections among populations of particular interest (e.g., children, adolescents, women). These trends may not be evident from AIDS surveillance. HIV surveillance provides a basis for establishing and evaluating linkages to the provision of prevention and early intervention services and can be used to anticipate unmet needs for HIV care.

Limitations: HIV surveillance data may underestimate the number of recently infected persons because some infected persons either do not know they are infected or have not sought testing. National HIV surveillance data represent infections in jurisdictions that have reporting laws for HIV. Reporting of behavioral risk information may not be complete.

Behavioral Risk Factor Surveillance System (BRFSS)

Overview: A state-based random-digit-dialed telephone survey that monitors state-level prevalence of the major behavioral risks associated with premature morbidity and mortality among adults. Each month, a sample of households is contacted and 1 person in the household who is 18 years or older is randomly selected for an interview. Multiple attempts are made to contact the sampled household. A Spanish translation of the interview is available. Respondents are asked a variety of questions about their personal health behaviors and health experiences. Since 1994, the BRFSS questionnaire has included questions related to HIV/AIDS for respondents aged 18 to 65 years. These questions include perceived risk of getting an HIV infection; use of HIV testing; reasons for testing; if tested, and the type of place where tested. As of 2001, respondents have been asked about their perception of the importance of HIV testing.

Population: All non-institutionalized adults, 18 years and older, who reside in a household with a telephone

Strengths: Data are population based; thus, estimates about testing attitudes and practices can be generalized to the adult population of a state. The sample is large (4,824 total respondents in Idaho in 2003). Information collected from the BRFSS survey may be useful for planning community-wide education programs.

Limitations: BRFSS data are self-reported; thus, the information may be subject to recall bias. No attempt is made to corroborate information given in this survey. Respondents are contacted by telephone survey; thus, the data are not representative of households without a telephone. In addition, BRFSS data are representative of the general non-institutionalized adult population in an area, not just persons at highest risk for HIV/AIDS. The extent of HIV behavioral risk information collected by the BRFSS questionnaire is limited and inferences can be made only at the state level.

Youth Risk Behavior Surveillance System (YRBSS)

Overview: The YRBSS was established to monitor behaviors that contribute to the leading causes of mortality, morbidity, and social problems among youth and young adults in the United States. YRBSS was developed to collect data that are comparable nationally, statewide, and locally. It is a self-administered questionnaire that is given to a representative sample of students in grades 9 through 12 at the state and local levels.

Population: A representative sample of students in grades 9 through 12 at the state and local level

Strengths: YRBSS samples adolescents in public schools and is population-based. The YRBS questionnaire is administered to students anonymously during school. Inferences from YRBSS estimates can be drawn about behaviors and attitudes of adolescents in school, which makes the information useful for developing communitywide prevention programs aimed at younger persons.

Limitations: The YRBSS project relies upon self-reported information; therefore, reporting of sensitive behavioral information may not be accurate (may be underreported or overreported). Also, because the YRBSS questionnaire is administered in school, the data are representative only of students and cannot be generalized to all youth. For example, students at highest risk, who may be more likely to be absent from school or to drop out of school, may be underrepresented in this survey, especially among upper grades.

HIV Counseling and Testing System (CTS)

Overview: All states, territories, and selected cities receive funding to support HIV counseling, testing, and referral programs as part of HIV prevention cooperative agreements with CDC. To monitor these programs, the CTS collects information to quantify and characterize services delivered at CDC-funded sites. Data include information on demographics and on counseling and testing (testing history, test result).

Population: All clients who receive confidential or anonymous HIV counseling and testing services at a site funded through a CDC cooperative agreement

Strengths: Standardized data on clients who are tested for HIV are available at the local level. Data may offer insights into HIV infection rates for a high-risk population in that area. CTS testing data may highlight the effect of a prevention program upon the populations being targeted and the effect of prevention programs upon routine HIV/AIDS surveillance.

Limitations: In most areas, the CTS collects test-based, rather than person-based, data and collects information only from persons who seek counseling and testing services at a CDC-funded site. Population estimation of HIV seroprevalence is not possible at sites where CTS data are test based, like Idaho. In test based systems, because a person can repeatedly seek testing, it is not possible to distinguish persons who have been tested multiple times; however, an estimate of the number of persons may be made by using the self-report of a previous HIV-positive test result on the client abstract form. Because the CTS gathers data on prevention activities, changes may reflect changes in program priorities rather than testing patterns of individuals.

Sexually Transmitted Disease Surveillance

Overview: CDC conducts surveillance to monitor the levels of syphilis, gonorrhea, chancroid, and, more recently, chlamydia, in the United States in order to establish prevention programs, develop and revise treatment guidelines, and identify populations at risk for sexually transmitted diseases (STDs). States, local areas, and US territories submit to CDC (weekly, monthly, or annually) case reports of STDs that have met the respective case definition for the infection. Case report forms include information on patient demographics, type of infection, and source of report (private or public sector). Service areas conduct both passive and active surveillance of STDs to monitor the STD epidemic in their area.

Population: All persons with a diagnosis of an infection that meets the CDC surveillance case definition for the infection and who are reported to local health department

Strengths: STD surveillance data can serve as a surrogate marker for unsafe sexual practices. STD data are widely available at the state and local level and because of shorter incubation periods between exposure and infection, STDs can serve as a marker of recent unsafe sexual behavior. In addition, certain STDs (e.g., ulcerative STDs) can facilitate transmission or acquisition of HIV infection. Finally, changes in trends of STDs may indicate changes in community sexual norms (e.g., unprotected sex).

Limitations: STDs are reportable, but requirements for reporting differ by state. Reporting of STDs from private-sector providers may be less complete. Although STD risk behaviors result from unsafe sexual behavior, they do not necessarily correlate with HIV risk. Trends in chlamydia infections may reflect changes in reporting and screening practices rather than actual trends in disease.

US Bureau of the Census (Census Bureau)

Overview: The Census Bureau collects and provides timely information about the people and the economy of the United States. The Web site for the Census Bureau includes data on demographic characteristics (e.g., age, race, Hispanic ethnicity, sex) of the population, family structure, educational attainment, income level, housing status, and the percentage of persons living at or below the poverty level. Tables and maps of census data are available for all geographic areas to the block level. Summaries of the most requested data for states and counties are provided, as well as analytical reports on population change, race, age, family structure, and apportionment.

Population: US population.

Strengths: Provides an estimate of the population of interest in absence of an actual census; census provides actual counts.

Limitations: Estimates are not an actual count of a population, but are arrived at through statistical means. Census may miss migrating or homeless populations.

Appendix B: Trend Tables

Table 40. HIV/AIDS cases by sex and year of first diagnosis—Idaho, 2001–2005

	Year of Diagnosis						
Sex	2001	2002	2003	2004	2005	Total	Percent
Male	28	27	29	21	32	137	82%
Female	9	5	3	7	6	30	18%
TOTAL	37	32	32	28	38	167	100%

Table 41. HIV/AIDS cases by age group and year of first diagnosis—Idaho, 2001–2005

	Year of Diagnosis						
Age group*	2001	2002	2003	2004	2005	Total	Percent
<13	1	0	0	0	0	1	1%
13-19	0	0	1	1	0	2	1%
20-29	11	8	5	9	10	43	26%
30-39	12	13	11	10	12	58	35%
40-49	9	6	13	7	11	46	28%
50+	4	5	2	1	5	17	10%
TOTAL	37	32	32	28	38	167	100%

Table 42. HIV/AIDS cases by race/ethnicity and year of diagnosis—Idaho, 2001–2005

	Year of Diagnosis						
Race/ethnicity	2001	2002	2003	2004	2005	Total	Percent
Hispanic - any race	3	4	3	4	4	18	11%
American Indian/AK native	2	0	1	1	3	7	4%
Asian/Pacific Islander	1	1	0	0	0	2	1%
Black	3	1	0	2	0	6	4%
White	28	26	27	20	31	132	79%
Other	0	0	0	1	0	1	1%
Unknown	0	0	1	0	0	1	1%
TOTAL	37	32	32	28	38	167	100%

Table 43. HIV/AIDS cases by exposure category and year of report—Idaho, 2001–2005

	Year of Diagnosis						
Exposure category	2001	2002	2003	2004	2005	Total	Percent
Adult							
MSM	9	12	16	11	22	70	42%
IDU	6	3	2	5	2	18	11%
MSM/IDU	4	4	2	3	2	15	9%
Hemophiliac	0	0	0	0	0	0	0%
Heterosexual contact	7	7	3	1	2	20	12%
Transfusion/transplant	1	1	0	0	0	2	1%
Risk not specified	9	5	9	8	10	41	25%
Pediatric							
Mother with/at risk HIV	0	0	0	0	0	0	0%
Other/undetermined	1	0	0	0	0	1	1%
TOTAL	37	32	32	28	38	167	100%

Appendix C. Planning Group Epidemiologic Profile Feedback Form

The purpose of this form is to provide the writers of HIV/AIDS epidemiologic profiles feedback from their end users regarding the ease of use and applicability of the profile to prevention and care planning activities.

Please complete this feedback form and send it to:

Jared Bartschi
Office of Epidemiology and Food Protection
Idaho Department of Health and Welfare
450 West State Street, 4th Floor
Boise, ID 83720

1. What is your role on the Idaho Care and Prevention Council (or local) planning group (if applicable)?

_____

2. Was the epidemiologic profile easy to read?
   _____Yes
   _____ No
   _____Somewhat

3. How were the findings of the epidemiologic profile communicated to you?
   _____Print copy only
   _____Profile writers presented epidemiologic profile to planning group
   _____Other type of presentation:
   _____

4. Were the findings of the epidemiologic profile clear to you?
   _____Yes
   _____No
   _____Somewhat

If not, please explain why.

_____
_____
_____

5. Was the epidemiologic profile useful to your planning process?
   _____Yes
   _____No
   _____Somewhat

If not, please explain why.

_____
_____
_____

6. Describe how you used the epidemiologic profile in your planning activities.

_____

_____

_____

7. How can the next epidemiologic profile be improved?

_____

_____

_____

Appendix D. Glossary

adjustments. Statistical calculations that allow the comparison of different groups (when the difference may affect what you are studying) as though they are alike. Differences in populations or subgroups make it difficult to make comparisons; adjustments remove the influence of a specific factor (e.g., age, gender, race, or disease status) from the analysis.

aggregated data. Information, usually summary statistics, which is summed or presented together to prevent the identification of individuals.

AIDS (acquired immunodeficiency syndrome). The condition that results from HIV infection and is marked by the presence of opportunistic infections that do not affect persons with healthy immune systems.

behavioral data. Data collected from studies of human behavior that is relevant to disease risk. Relevant behaviors for HIV risk may include sexual activity, substance use, sharing of drug paraphernalia, condom use, or responses to primary and secondary prevention messages.

CARE Act (Ryan White Comprehensive AIDS Resources Emergency Act). The primary federal legislation created to address the needs for health and support services among persons living with HIV/AIDS and their families in the United States; enacted in 1990 and reauthorized in 1996.

case. A condition, such as HIV infection (e.g., an HIV case) or AIDS (e.g., an AIDS case) diagnosed according to a standard case definition.

CDC. The Centers for Disease Control and Prevention, in the U.S. Department of Health and Human Services, is the lead federal agency for protecting the health and safety of the people of the United States. The CDC provides most of the funding for HIV prevention and HIV surveillance activities in Idaho.

community planning group. A group of persons who represent, or have interests in, a given community and who work in partnership with health departments to design local prevention plans to meet the needs of persons at risk for, or infected with, HIV.

comprehensive planning. The process used to determine how HIV services will be organized and delivered. Comprehensive HIV services planning requires planning councils and consortia to answer 4 questions: (1) Where are we now? (2) Where should we be going? (3) How will we get there? (4) How will we monitor our progress?

confidentiality. The treatment of information that an individual or institution has disclosed in a relationship of trust, with the expectation that the information will not be divulged to others in ways that are inconsistent with the individual's or institution's understanding when the individual or institution provided the information. It encompasses access to, and disclosure of, information in accordance with requirements of state law or official policy. For HIV/AIDS surveillance data, confidentiality refers to the protection of private information collected by the HIV/AIDS surveillance system.

continuum of care. A coordinated delivery system, encompassing a comprehensive range of health and social services that meet the needs of people living with HIV at all stages of illness.

core epidemiologic questions. The questions in an epidemiologic profile that must be answered by all prevention and care grantees, regardless of HIV morbidity in their areas.

cumulative cases. The total number of cases of a disease reported or diagnosed during a specified time. Cumulative cases can include cases in people who have died.

denominator. Divisor; the term of a fraction, usually written under or after the line that indicates the number of equal parts into which the unit is divided; used to calculate a rate or ratio. For example, in the fraction ¾, four is the denominator.

eligible metropolitan area (EMA). A metropolitan statistical area that qualifies for Title I funding by reaching a certain threshold of AIDS cases. EMAs may cover 1 city, several cities or counties, or more than 1 state.

epidemiologic profile. A document that describes the HIV/AIDS epidemic in various populations and identifies characteristics both of HIV-infected and HIV-negative persons in defined geographic areas. It is composed of information gathered to describe the effect of HIV/AIDS on an area in terms of sociodemographic, geographic, behavioral, and clinical characteristics. The epidemiologic profile serves as the scientific basis from which HIV prevention and care needs are identified and prioritized for a jurisdiction.

epidemiology. The study of the distribution and determinants of health-related states or events in specified populations and the application of this study to the control of health problems.

estimate. In situations in which precise data are not available, an estimate may be made on the basis of available data and an understanding of how the data can be generalized to larger populations.

exposure categories. To monitor how HIV is being transmitted, HIV/AIDS cases are classified as one of several exposure (risk) categories developed by the CDC. This classification is calculated based on the reported risk factors for the case.

- Male-male sexual contact refers to men who have sex with men (MSM).
- MSM/IDU refers to cases which are reported with dual risk factors of injection drug use AND male-male sexual contact.
- Injection drug use refers to the use of forms of drugs that require injection. Although it may be valuable to know that a person has used illicit drugs through other routes, this information would not be enough to classify a case as an exposure through injection drug use.
- High-risk heterosexual contact refers to heterosexual contact with a partner who is at increased risk for HIV infection, i.e., an MSM, an injection drug user, or a person with documented HIV infection.
- Hemophilia/transfusion/transplant cases are those resulting from a transfusion of blood or blood products.
- Perinatal HIV cases are cases of HIV infection in children resulting from transmission from an HIV-positive mother.
- Unspecified, or no identified risk (NIR), cases are those in persons who have no reported history of exposure at the time of the report date. This category includes persons for whom the surveillance protocols to document risk behavior information have not yet been completed, persons whose exposure history is incomplete because they have died, persons

who have declined to disclose their risk behavior or who deny any risk behavior, and persons who do not know the HIV status or risk behaviors of their sex partners.

health district. One of the seven geographic areas in Idaho in which public health surveillance or public health services are provided. Districts consist of groups counties. See map, page 1.

HIV (human immunodeficiency virus). The virus that causes AIDS. Persons with HIV in their system are referred to as HIV infected.

HIV Care Consortium. An association of public and private nonprofit providers of health support services and community-based organizations that plans, develops, and delivers services for people living with HIV. The CARE Act authorizes states to use Title II funds to establish consortia in "areas most affected by HIV disease."

HIV/AIDS surveillance. The systematic collection, analysis, interpretation, dissemination, and evaluation of population-based information about persons with a diagnosis of HIV infection and persons with a diagnosis of AIDS.

incidence. The number of new cases in a defined population during a specific period, often a year, which can be used to measure disease frequency.

incidence rate. The number of new cases in a specific area during a specific period among persons at risk in the same area and during the same period. Incidence rate provides a measure of the effect of illness relative to the size of the population. Incidence rate is calculated by dividing incidence in the specified period by the population in which cases occurred. A multiplier is used to convert the resulting fraction to a number over a common denominator (often 100,000).

mean. The sum of individual values in a data set divided by the total number of values. The mean is what many people refer to as an average.

median. The middle value in a data set. Typically, approximately half the values will be higher, and half will be lower. The median is useful when a data set has unusually high or unusually low values, which can affect the mean. It is also useful when data are skewed, meaning that most of the values are at one extreme or the other.

mode of exposure. See "exposure categories".

morbidity. The presence of illness in the population.

mortality. The total number of persons who have died of the disease of interest. Usually expressed as a rate, mortality (total number of deaths over the total population) measures the effect of the disease on the population as a whole.

no identified risk (NIR). Unspecified, or no identified risk (NIR), cases are those in persons who have no reported history of exposure at the time of the report date. This category includes persons for whom the surveillance protocols to document risk behavior information have not yet been completed, persons whose exposure history is incomplete because they have died, persons who have declined to disclose their risk behavior or who deny any risk behavior, and persons who do not know the HIV status or risk behaviors of their sex partners.

numerator. Dividend, the term of a fraction, usually written above or before the line that indicates the number of parts that are to be divided; used to calculate a rate or ratio. For example, in the fraction ¾, three is the numerator.

percentage (proportion). A proportion of the whole, in which the whole is 100.

prevalence. The total number of cases of a disease in persons not known to have died in a given population at a specific time. Prevalence does not indicate how long a person has had a disease and cannot be used to calculate rates of disease. It can provide an estimate of risk for a disease at a specific time. For HIV/AIDS surveillance, prevalence refers to living persons with HIV disease, regardless of time of infection or date of diagnosis. Note the difference between prevalence of a condition in the population and the prevalence of cases, namely, that a case must be diagnosed according to a definition.

proportion (percentage). A portion of a complete population or data set, usually expressed as a fraction or percentage of the population or data set.

range. The largest and smallest values in a data set.

rate. A measure of the frequency of an event or a disease compared with the number or persons at risk for the event or disease.

reporting delay. The time between a diagnosis of HIV infection or AIDS and the receipt of the report by the health department.

representative. A sample that is similar to the population from which it is drawn and thus can be used to draw conclusions about the population.

Ryan White CARE Act. The Ryan White Comprehensive AIDS Resources Emergency Act was created to provide federal assistance to increase the availability of primary health care and support services for persons living with HIV disease, to increase access to care for underserved populations, and to improve the quality of life of those affected by HIV infection. The CARE Act was first enacted by Congress in 1990 and was reauthorized in 1996 and 2000. HRSA implements the CARE Act and directs assistance through the following channels:

- Title I provides support to eligible metropolitan areas (EMAs) with the largest numbers of reported AIDS cases, to meet emergency service needs of persons living with HIV. Idaho does not have an eligible EMA and does not receive Title I funding.
- Title II provides support to all states and territories to improve the quality, availability, and organization of health care and support services for persons living with HIV and their families.
- Title III supports early-intervention outpatient HIV services through funding to public and private nonprofit entities.
- Title IV funds public and private nonprofit entities to conduct projects to coordinate services to children, youth, women, and families with HIV/AIDS. Idaho does not receive Title IV funding.
- Part F provides support for Special Projects of National Significance (SPNS) to develop and evaluate innovative models of HIV/AIDS care, for AIDS Education and Training Centers (AETCs) to conduct education and training for health care providers, and for the HIV/AIDS

Dental Reimbursement Program to assist with providing oral health services to HIV-infected patients. Idaho does not receive Part F funding.

sample. A group of people selected from a total population with the expectation that studying this group will provide important information about the total population.

service area. CDC jurisdictions and HRSA service areas or planning regions.

sociodemographic factors. Background information about the population of interest (e.g., age, sex, race, educational status, income, geographic location). These factors are often thought of as explanatory because they help us to make sense of the results of our analyses.

surveillance. In a public health context, refers to the intentional collection of data on diseases or other important health conditions in order to monitor where the condition occurs and to determine the risk factors associated with the condition.

trend. A long-term movement or change in frequency, usually upward or downward; may be presented as a line graph.

year of diagnosis. The year in which a diagnosis of HIV infection or AIDS was made.

year of report. The year in which a person with a diagnosis of HIV infection or AIDS was reported to the health department.

References

1. Centers for Disease Control and Prevention and Health Resources and Services Administration. Integrated Guidelines for Developing Epidemiologic Profiles: HIV Prevention and Ryan White CARE Act Community Planning. Atlanta, Georgia: Centers for Disease Control and Prevention; 2004.

2. Centers for Disease Control and Prevention. HIV/AIDS Surveillance Report, 2005. Vol. 17. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention; 2006.

3. Centers for Disease Control and Prevention. Youth Risk Behavior Surveillance —United States, 2005. Surveillance Summaries, June 9, 2006. MMWR 2006; 55 (No. SS-5).

4. Heffelfinger J et al. Estimates of the Numbers of Cases of Primary and Secondary Syphilis Occurring Among Men Who Have Sex with Men in the United States, 1999-2002. Presented at the 2004 National STD Prevention Conference; March 8–11; Philadelphia, PA.

5. Idaho Department of Education. Results of the 2005 Idaho Youth Risk Behavior Survey and 2004 School Health Education Profile. http://www.sde.idaho.gov/instruct/docs/hiv/HEALTHED/YRBS2005Report.pdf, Accessed 12/13/2006

6. Idaho Department of Health and Welfare. Idaho Behavioral Risk Factors: Results From the 2005 Behavioral Risk Factor Surveillance System. Boise: Idaho Department of Health and Welfare, Division of Health, Bureau of Health Policy and Vital Statistics, 2006.