

# *MONTANA 2008 ANNUAL REPORT:*



## *STDs INCLUDING HIV/AIDS AND HEPATITIS C*

*MARCH 2009*

Cover photo from: [http://darkwing.uoregon.edu/~nhampton/picgallery/stateflowers\\_files/image006.jpg](http://darkwing.uoregon.edu/~nhampton/picgallery/stateflowers_files/image006.jpg)

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**HIV/AIDS**

- ◆ As of December 31, 2008, a total of 895 cases of Human Immunodeficiency Virus (HIV) and Acquired Immune Deficiency Syndrome (AIDS) have been reported to Montana Department of Public Health and Human Services (MTDPHHS) since reporting began in 1985 and 512 of these are not reported as deceased or having moved from Montana.
- ◆ Though Montana is considered a “low incidence” state with respect to HIV/AIDS, 16-27 new cases were diagnosed every year from 2000-2007.
- ◆ Nearly 9 of every 10 reported cases of HIV/AIDS have been men.
- ◆ Men who have sex with men (MSM) account for 4 times as many reported cases of HIV/AIDS as do persons of other known risk factors.
- ◆ The largest risk factor for females is high risk heterosexual contact (HRH).
- ◆ Nearly 90% of HIV/AIDS cases occur in persons reporting race as White, a percentage consistent with the general Montana population. The same proportionate representation is seen with the largest minority group, American Indians, who represent about 6.3% of the general population and about 7% of the reported HIV/AIDS cases.
- ◆ The average age at HIV diagnosis has remained in the upper 30s since 2000.
- ◆ 67% of known persons living with HIV/AIDS sought care in 2008.

**Other STDS**

- ◆ STD cases were reported from nearly every county in 2008. *Chlamydia trachomatis* infections (chlamydia) has remained the most commonly reported STD since 2000, followed by infection with *Neisseria gonorrhoea* (gonorrhea).
- ◆ Most chlamydia and gonorrhea infections were reported in persons of White race, though the case rate was 7.5 times higher in American Indians/Alaska Natives than in Whites in 2008.
- ◆ Twenty-eight syphilis cases (*Treponema pallidum*) were reported from 2000 through 2008. Cases were not generalized to one age group.

**Hepatitis C**

- ◆ Hepatitis C rates were highest among American Indians and persons age 45-54 in 2008.

**Recommendations**

- ◆ Due to the economic disparities and rural locations in Montana, some populations may have less access to testing, care, and treatment; these populations may not be fully reflected in this report due to underreporting. Further prevention/outreach work must be done in order to reduce the number of HIV/AIDS, STD, and hepatitis C cases among Montana’s population.

## Introduction

This report provides information about selected STDs including HIV/AIDS and hepatitis C in Montana. It is meant to provide an overview of the characteristics of each disease including demographic groups affected, number of cases reported, and disparities by race and age. The information from this report is intended to help plan prevention and control programs.

The profile is presented in several parts. The first section describes the characteristics of the state in general, including demographics and socioeconomic status. This section is followed by general cumulative information on all cases of HIV/AIDS reported in Montana. Prevalent, or living, cases are then discussed separately by sex. Finally, the access to care section describes data collected on HIV testing and medical treatment for persons living with HIV/AIDS. The section on STDs includes demographic and geographic characteristics of cases of *Chlamydia trachomatis* (chlamydia), *Neisseria gonorrhoea* (gonorrhea) and *Treponema pallidum* (syphilis) by demographics and geography. The hepatitis section includes information on hepatitis C. Acronyms used are listed in the glossary at the end of this document.

AIDS reporting began in Montana 1985 and HIV reporting in 2000. Reports are collected through passive and active surveillance. All new HIV/AIDS cases diagnosed in Montana are reportable as well as persons living with HIV/AIDS who have moved to the state, but were diagnosed elsewhere. The system uses a standard case report form to collect demographic, risk, treatment, vital status, and laboratory information. All information is strictly confidential and only general demographic data are transmitted to the national database with no names or addresses reported. This information is then used to guide prevention efforts based on current risk behaviors and affected populations.

STD information is collected through a similar surveillance system using a case report form and database to track trends in STD cases. Because STDs are typically recognized relatively soon after exposure to infection, they can often be used as a marker for unsafe sexual practices. These numbers may be biased towards women, as more women receive screening opportunities when seeking family planning services. They may also only be representative of the population of women who seek care.

There are several other limitations to consider when interpreting information in this profile. Because these data rely on reporting, numbers provide minimum estimates. For example, people receiving anonymous HIV testing will not be included in surveillance numbers. Furthermore, completeness of reporting can affect interpretation. For counties with complete reporting, the number or rate of cases may look much higher than in another area with incomplete reporting, though the true rate of infections may not differ. Another consideration when looking at these data is the sample size. When the data set is stratified, numbers for subgroups may become very small. The addition of one additional case, may lead to a large percentage difference between some strata.

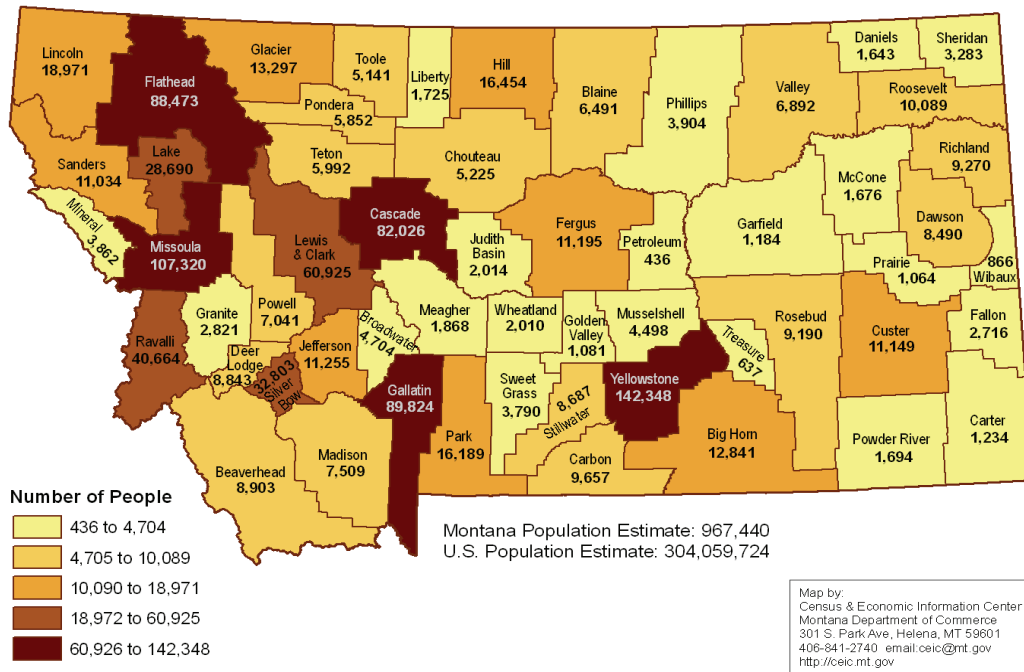
These databases are maintained daily and are constantly changing and being updated with vital information, laboratory data, and residence information. The data shown in this report represent the status of the HIV/AIDS database as of Dec 31, 2008, and STD cases reported from 2000-2008 as well as reported hepatitis C cases in 2008, chronic and acute.

This profile was prepared by the MTDPHHS HIV/AIDS Surveillance program in collaboration with the STD, Ryan White CARE and HIV Programs, and Hepatitis C Program. Questions or comments can be directed to the epidemiologist at (406) 444-3049.

## General Demographics

In 2008, the estimated population of Montana was approximately 967,440<sup>1</sup> (Figure 1). Population in the 56 counties ranges from 436 in sparsely populated Petroleum County to over 140,000 in Yellowstone County. By density, 45 counties are classified as frontier, or having 6 or fewer people per square mile, and 10 counties having 6-50 people per square mile, classifying them as rural<sup>2</sup>. There are 3 metropolitan statistical areas in the state: Billings, Great Falls, and Missoula.

Figure 1. County Populations, 2008



## Demographic Composition

The Census Bureau's American Community Survey produces estimated numbers for selected characteristics of populations. In 2007, the largest age group (of the age groups shown in Table 1) in the Montana population was 45-64 year olds (Table 1), while the sex of the population was evenly distributed between males and females (Table 2).

Table 1. Age of the General Population, 2007

Age in Years	Percent
Under 5	6.1
5-14	12.7
15-24	14.6
25-44	24.7
45-64	28.3
Over 65	13.8

Table 2. Sex of the General Population, 2007

Sex	Percent
Male	50.0
Female	50.0

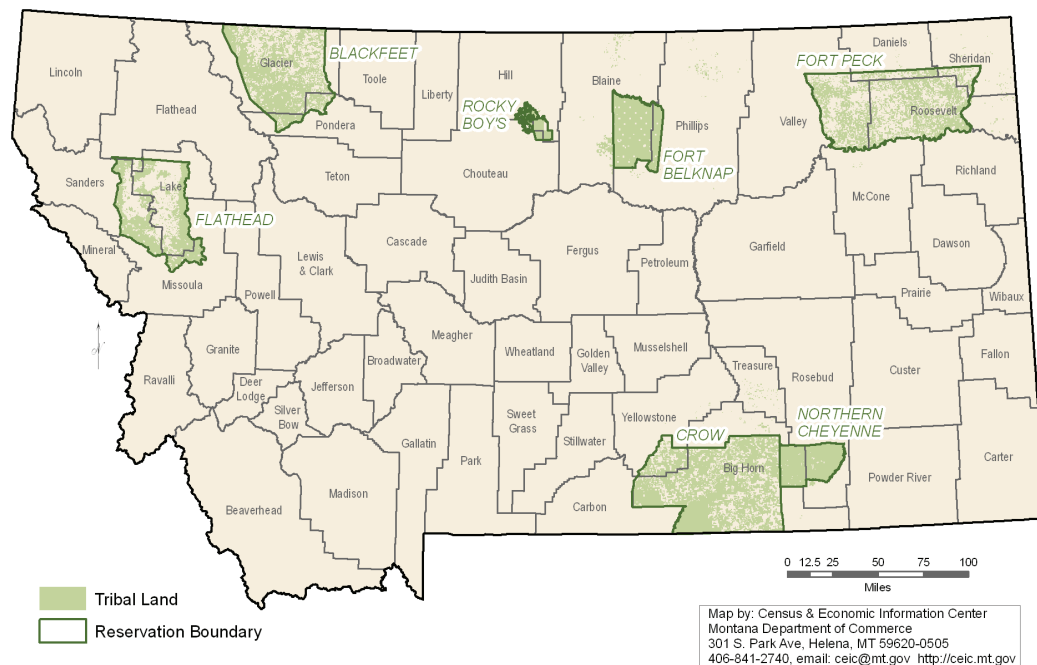


Most Montanans report being either White, non-Hispanic (90%) or American Indian/Alaska Native (6.2%). There are few other races in Montana compared to the United States (Table 3). Montana contains seven American Indian reservations (Figure 2).

**Table 3. Race/Ethnicity of Montana versus the United States, 2007**

<i>Race/Ethnicity</i>	<i>Montana (%)</i>	<i>US (%)</i>
White, not Hispanic	89.6	74.1
American Indian/Alaska Native	6.2	0.8
Black or African American	0.7	12.4
Asian	0.7	4.3
Native Hawaiian and Other Pacific Islander	0.1	0.1
Some other race	0.7	6.2
Two or more races	2.1	2.1
Hispanic or Latino, any race	2.1	14.7

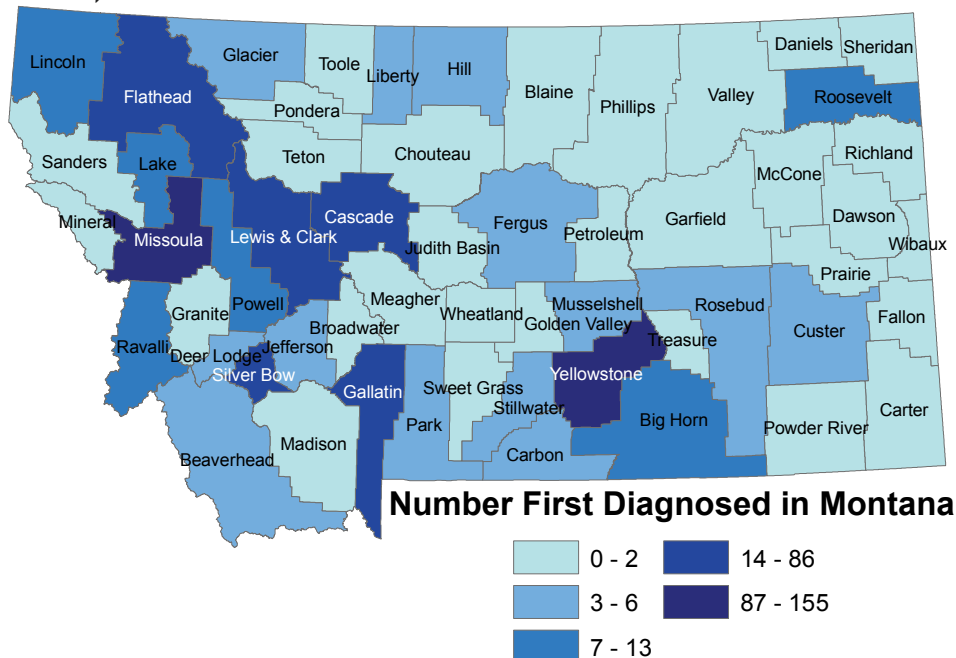
**Figure 2. Location of Montana's Tribal Lands**



## Cumulative HIV/AIDS Data

As of December 31, 2008, a total of 895 HIV/AIDS cases had been reported in Montana since reporting began in 1985, and 575 of those were first diagnosed in Montana. Of those first diagnosed in Montana, 65% were living in the seven most populated counties (Yellowstone, Missoula, Flathead, Cascade, Lewis & Clark, and Ravalli) (Figure 3).

**Figure 3. County of Residence of HIV/AIDS Cases Diagnosed in Montana, 1985-2008 (N=575)**



Over time, the annual number of deaths among people with HIV/AIDS has slowed, while the number of reported cases continues to increase (Figure 4).

**Figure 4. Cumulative Frequency of All Reported HIV/AIDS Cases and Deaths, by Year of Diagnosis or Death, Montana, 1985-2008**

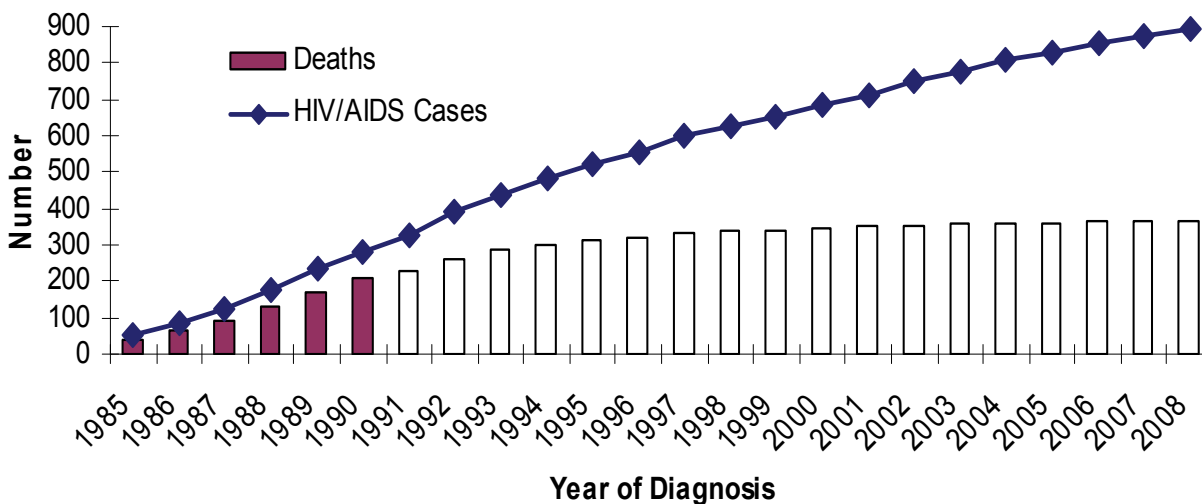




Table 4. Cumulative Reported HIV/AIDS Cases by Selected Characteristics, Montana, 1985-2008

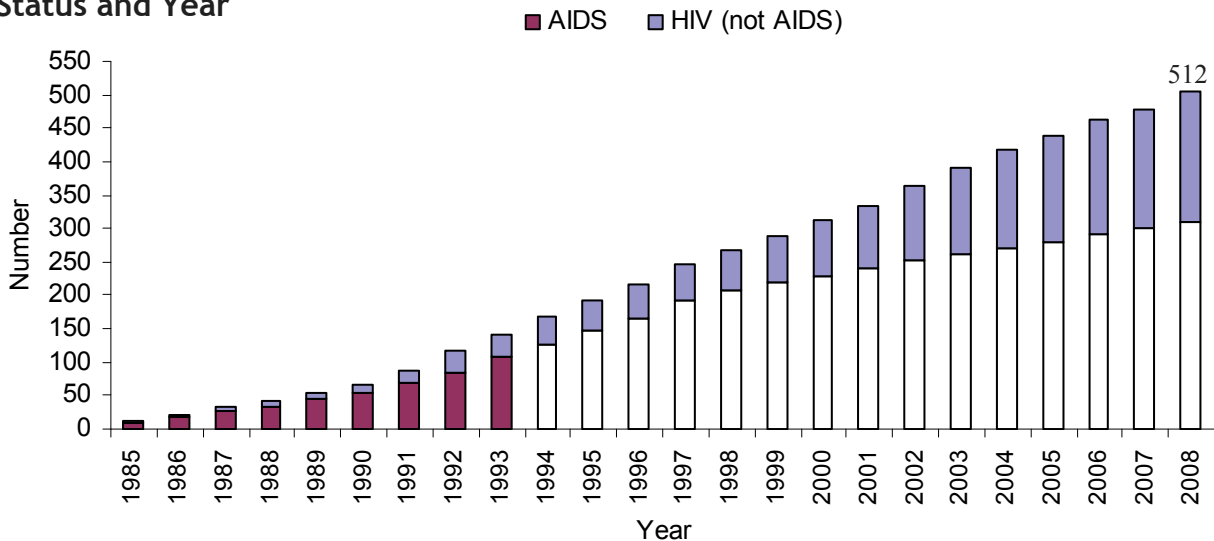
<i>Characteristic</i>	<i>Cumulative Reported Cases (including those diagnosed out of state)</i>		<i>Cumulative Cases Diagnosed in Montana (only MT Diagnoses)</i>	
<b>Sex</b>	<b>Number</b>	<b>%</b>	<b>Number</b>	<b>%</b>
<b>Male</b>	779	87	491	85
<b>Female</b>	116	13	84	15
<b>Age at Diagnosis</b>				
<b>Under 5</b>	6	<1	3	<1
<b>5-12</b>	0	0	0	0
<b>13-19</b>	24	3	12	2
<b>20-29</b>	267	30	165	29
<b>30-39</b>	362	41	226	39
<b>40-49</b>	147	16	99	17
<b>50-59</b>	68	8	51	9
<b>Over 59</b>	19	2	17	3
<b>Race</b>				
<b>American Indian/Alaska Native</b>	58	6	42	7
<b>Mixed Race</b>	5	<1	<5	1
<b>Other</b>	56	6	32	6
<b>White</b>	776	87	497	86
<b>Mode of Exposure*</b>				
<b>Men Having Sex with Men (MSM)</b>	475	53	292	51
<b>Injecting Drug Use (IDU)</b>	117	13	72	13
<b>MSM &amp; IDU</b>	98	11	53	9
<b>High Risk Heterosexual</b>	97	11	74	13
<b>Other (Transfusion/Perinatal)</b>	28	3	22	4
<b>No Risk Specified (RNS)</b>	80	9	62	11
<b>Total</b>	<b>895</b>	<b>100</b>	<b>575</b>	<b>100</b>

\*Mode of Exposure defined on page 28

## Reported Prevalent HIV/AIDS Cases in Montana

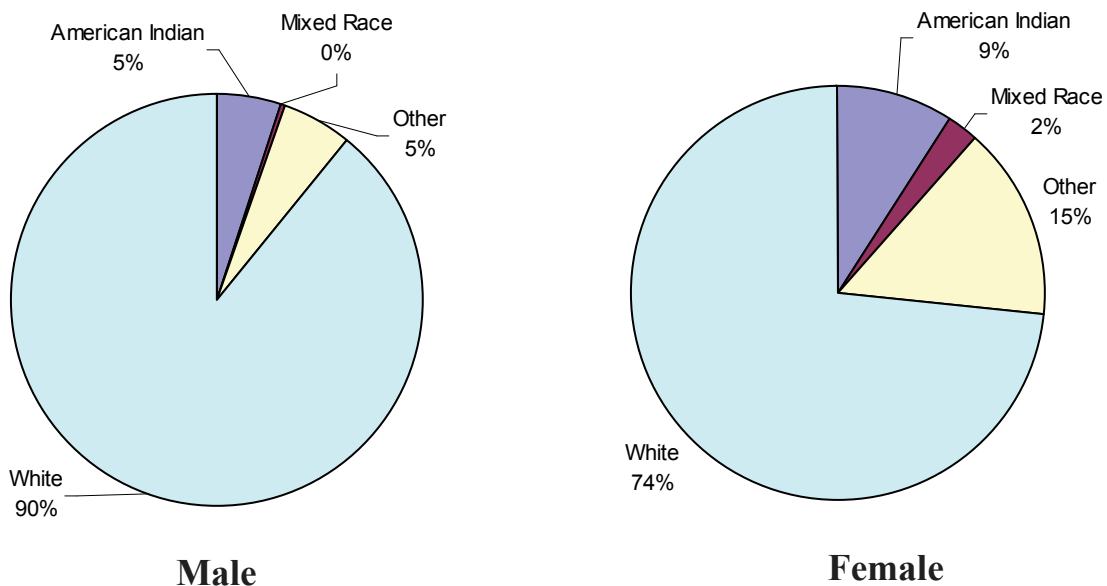
The following figures demonstrate characteristics of reported cases of people living with HIV/AIDS in Montana, including those originally diagnosed out of state. As of December 31, 2008 there were 512 known HIV/AIDS cases living in Montana. Because prevalent numbers are based on reported cases, this number may underestimate the number of people living with HIV/AIDS in Montana.

**Figure 5. Cumulative Reported Cases of People Living HIV/AIDS, by Diagnostic Status and Year**



The number of people known to be living with HIV/AIDS in Montana has steadily increased since 1985. As of December 2008, 61% of total living HIV/AIDS cases had been reported as AIDS cases (Figure 5). Minority races constitute a larger proportion of female than of male cases. (Figure 6).

**Figure 6. Reported Prevalent HIV/AIDS Cases, by Sex and Race**



The majority of prevalent male cases are White men who have sex with men (MSM). This presumed mode of exposure is also the most common for American Indians/Alaska Native (AI/AN) men and men of other races (Table 5). The majority of prevalent female cases are among Whites who have had high risk heterosexual sex (HRH), which is also the most common presumed mode of exposure for AI/AN females (Table 5). At the time of diagnosis, MSM is (or has been) the most common risk group for all adult ages, except those over age 64. Most cases have occurred between the ages of 30-39 (Table 6). Females aged 30-39 at the time of diagnosis were the most frequent age group among living HIV/AIDS cases and HRH was the most common risk group for all adult female age groups (Table 6).

**Table 5. Reported Prevalent HIV/AIDS Cases, by Sex, Race and Mode of Exposure**

	<i>Males</i>					<i>Females</i>					<i>Both Sexes</i>
	AI/AN	Mixed Race	Other	White	Subtotal (%)	AI/AN	Mixed Race	Other	White	Subtotal (%)	Total (%)
<b>MSM</b>	10	<5	10	251	271 (53)	N/A	N/A	N/A	N/A	--	271 (53)
<b>IDU</b>	<5	<5	<5	32	39 (7)	<5	<5	5	16	23 (5)	62 (12)
<b>MSM &amp; IDU</b>	<5	<5	<5	53	60 (12)	N/A	N/A	N/A	N/A	--	60 (12)
<b>HRH</b>	<5	<5	<5	17	19 (4)	5	<5	6	38	51 (10)	70 (14)
<b>NRS/Other</b>	<5	<5	7	27	37 (7)	<5	<5	<5	9	12 (2)	49 (9)
<b>Total</b>	21	2	23	380	426 (83)	8	2	13	63	86 (17)	512 (100)

**Table 6. Reported Prevalent HIV/AIDS Cases, by Sex, Age at Diagnosis and Mode of Exposure**

	<i>Males</i>								<i>Females</i>								<i>Both Sexes</i>
	0-5	13-19	20-29	30-39	40-49	50-59	Over 59	Subtotal (%)	0-5	13-19	20-29	30-39	40-49	50-59	Over 59	Subtotal (%)	Total (%)
<b>MSM</b>	<5	<5	86	114	40	24	<5	271 (53)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	--	271 (53)
<b>IDU</b>	<5	<5	11	18	5	<5	<5	39 (7)	<5	<5	<5	12	5	<5	<5	23 (5)	62 (12)
<b>MSM &amp; IDU</b>	<5	<5	28	20	6	<5	<5	60 (12)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	--	60 (12)
<b>HRH</b>	<5	<5	5	7	<5	<5	<5	19 (4)	<5	5	20	18	<5	<5	<5	51 (10)	70 (14)
<b>NRS/Other</b>	<5	<5	9	17	6	<5	<5	37 (7)	<5	<5	5	<5	5	<5	<5	12 (2)	49 (9)
<b>Total</b>	1	13	139	176	60	31	6	426 (83)	1	7	28	31	13	5	1	86 (17)	512 (100)

## Newly Diagnosed HIV/AIDS Cases

The annual number of HIV/AIDS cases reported during 2000-2008 ranged from 16-27 (Figure 7). In 2008, 22 newly diagnosed cases of HIV were reported, a case rate of 2.3 cases per 100,000 population. Nationally, the estimated rate of HIV/AIDS cases in 2007 was 21.1 per 100,000 population while the rate in Montana was 1.7.

**Figure 7. Newly Diagnosed HIV/AIDS Cases in Montana, 2000-2008**

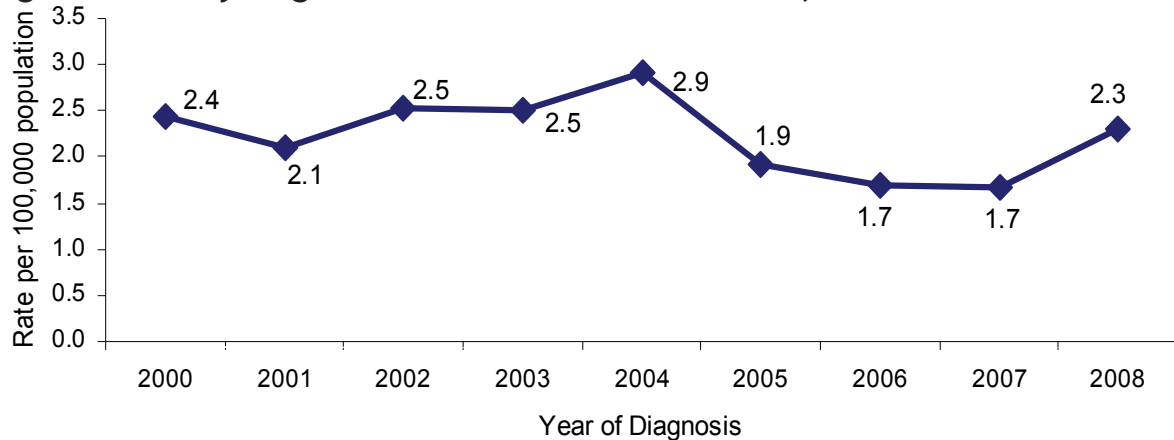


Table 7 compares newly diagnosed cases in three time periods. The majority of newly diagnosed cases remains among MSM, however, reported HRH sex increased among new cases in 2008. The proportion of newly diagnosed cases reported to be living in one of the seven largest counties at the time of diagnosis has increased, but 20-30% of new diagnoses lived in rural counties.

**Table 7. Comparison of Newly Diagnosed HIV Cases by Selected Characteristics, Montana 2000-2008**

Characteristic	2000-2004	2005-2007	2008
Number of Newly Diagnosed HIV Cases	Average 23/year	Average 17/year	22
Average Age at Diagnosis	37	39	37
Percent Male	83	92	73
Percent Reporting Race Other Than White	11	10	18
Percent of Modes of Exposure Reported			
-Men Having Sex With Men (MSM)	49	62	50
-Injection Drug Use (IDU)	9	2	5
-MSM/IDU	8	6	0
-High Risk Heterosexual Sex (HRH)	13	12	27
-Risk Not Specified (RNS)	21	18	18
Percent Receiving AIDS* Diagnosis < 1 year after HIV Diagnosis	35	50	41**
Percent of New Diagnoses that Occurred in the 7 Most Populated Counties**	68	76	82

\* An AIDS diagnosis can be made if a person has one of 26 AIDS defining opportunistic infections or a CD4 count of less than 200 or under 14%.

\*\* Not complete until 12/31/2009 \*\*\*Yellowstone, Missoula, Gallatin, Flathead, Cascade, Lewis & Clark, Ravalli

### **Ryan White CARE Act**

The Ryan White CARE Act was enacted as a federal program in August 1990 and has funded services to over 500,000 people with HIV/AIDS in the US every year<sup>3</sup>. The program is named after Ryan White, a teenager who died after acquiring HIV from blood products used to treat his hemophilia. His fight to stay in school and live a “normal life” made him a public advocate for persons living with HIV/AIDS. Montana receives Ryan White CARE Act funds to support drug assistance, public clinics, and program planning and evaluation. Two areas, Missoula and Billings, receive separate funds to support community-based health care providers. There are seven Ryan White-supported clinics in Montana.

- Of the 512 people living with HIV in Montana, 64%, have accessed the Ryan White program
- 67% of people living with HIV have accessed medical care (public and private) in 2008 (Table 8)
- An average of 96 people received drug assistance through the AIDS Drug Assistance Program (ADAP)

**Table 8. Percent of Persons Living with HIV/AIDS That Did Not Access Care\* in 2008, by Sex, Age, Race, and Diagnostic Status**

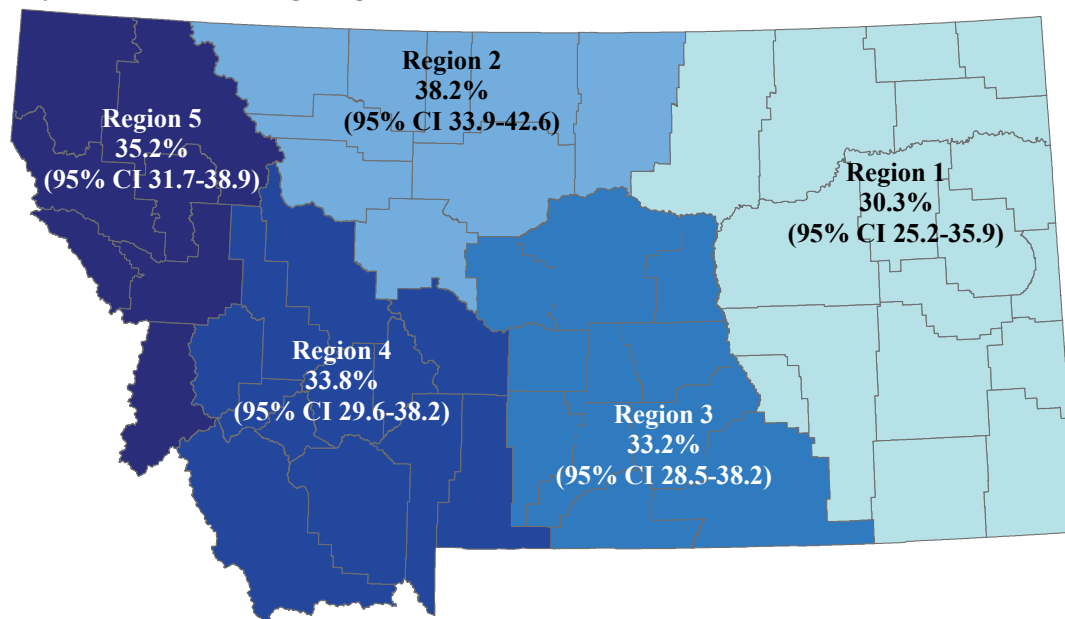
<i>Percent Not in Care</i>	
<b>Diagnostic Status</b>	
HIV	38.8
AIDS	29.2
<b>Sex</b>	
Male	33.5
Female	30.2
<b>Race</b>	
American Indian/Alaska Native	17.2
Mixed Race	0.0
Other	47.2
White	33.1
<b>Age at Diagnosis</b>	
Under 5	50.0
13-19	20.0
20-29	43.7
30-39	31.4
40-49	21.9
50-59	22.2
Over 59	28.6
Overall	33.0

\*Did not have a CD4 or HIV viral load reported to the state from a public or private provider in 2008

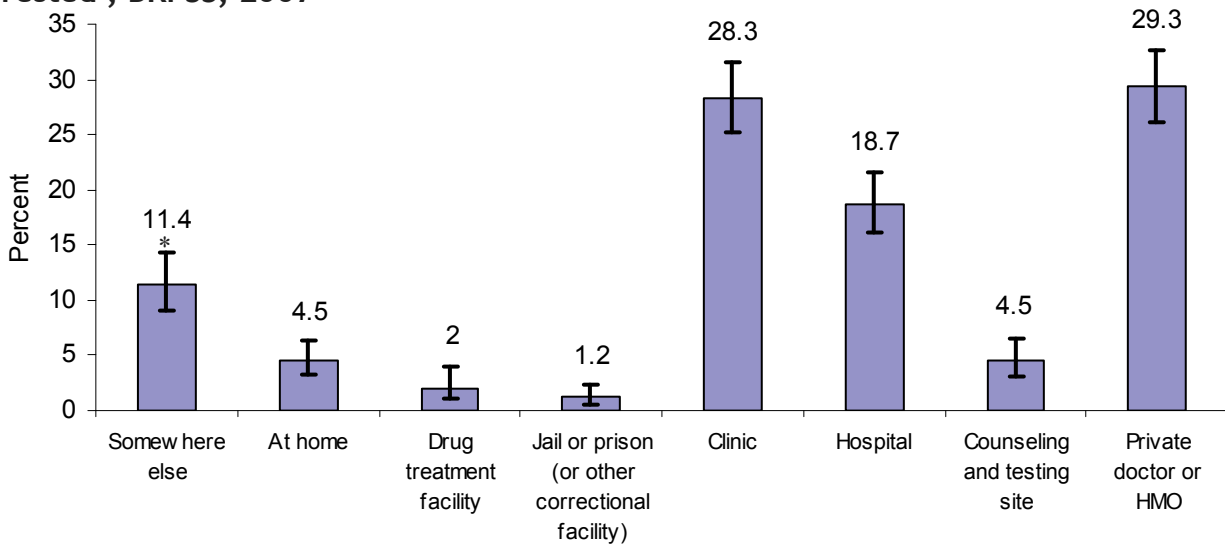
## HIV Testing

Based on data from the 2007 Behavior Risk Factor Surveillance System (BRFSS), the percentage of people, aged 18-64, who had ever been tested for HIV/AIDS was estimated by health planning region (Figure 8). On a whole, the state percentage of 34.6% is about 7% lower than the national estimate of persons who reported having ever been tested<sup>2</sup>. Most testing occurred in a private doctor's office (28%) or a clinic (29%) (Figure 9).

**Figure 8. Percent of the Population Reporting Having Ever Been Tested for HIV/AIDS<sup>§</sup>, by Health Planning Region, BRFSS, 2007**



**Figure 9. Location of HIV/AIDS Testing of Those Who Report Having Ever Been Tested<sup>§</sup>, BRFSS, 2007**



Location of HIV Test

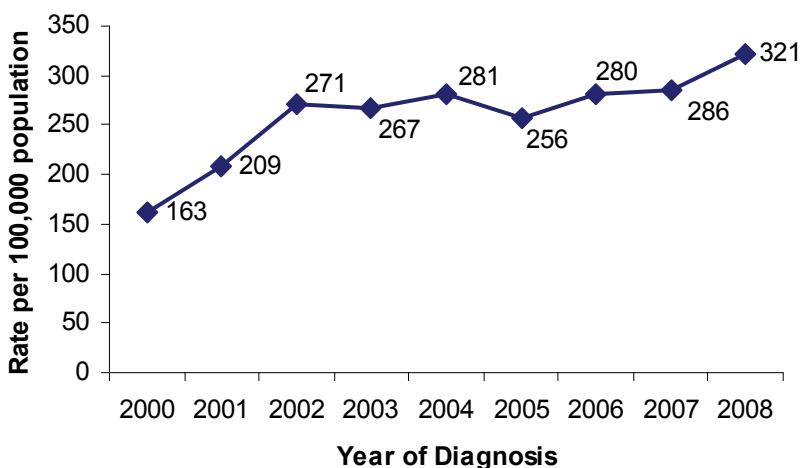
\* 95% Confidence intervals

§ Aged 18-64, excluding blood donations



## Chlamydia

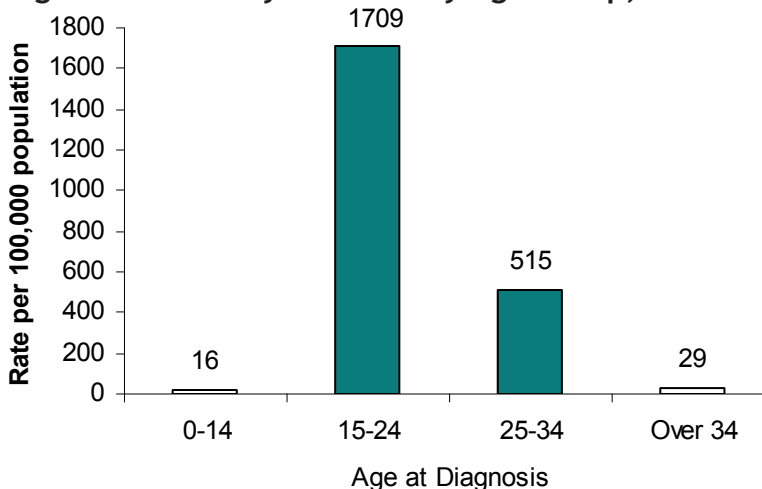
**Figure 10. Chlamydia Incidence Rate, 2000-2008**



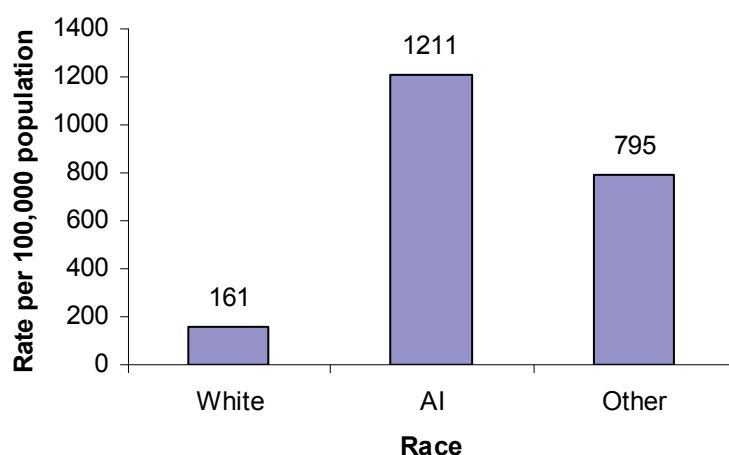
Chlamydia is the most commonly reported notifiable disease in the US and Montana. In 2007, the national rate of chlamydia infections was 370 cases/100,000 population. Since 2000, the rate of chlamydia infections in Montana has doubled (Figure 10). This may be due to increased screening, improved sensitivity of tests and reporting, and/or increased burden of disease.

**Figure 11. Chlamydia Rates by Age Group, 2008**

The majority of chlamydia cases were diagnosed in persons aged 15-24 in 2008 (53%). Based on population, this age group has an incidence rate over 3 times higher than any other age group (Figure 11). This may indicate more screening in this age group than in other age groups.



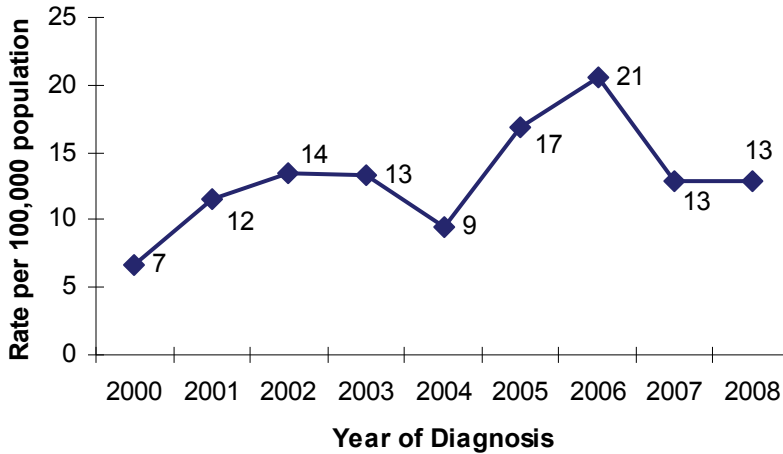
**Figure 12. Chlamydia Rates by Race, 2008**



Though there was nearly twice as many reported chlamydia cases in Whites as other races in 2008, relative to the population, the incidence rate was 7.5 times higher for American Indians than for Whites (Figure 12). Of importance are the 792 persons (25% of all reported cases) for whom no race was reported. Reclassification of these persons could affect other categories' rates outcomes, emphasizing the importance of complete reporting.

## Gonorrhea

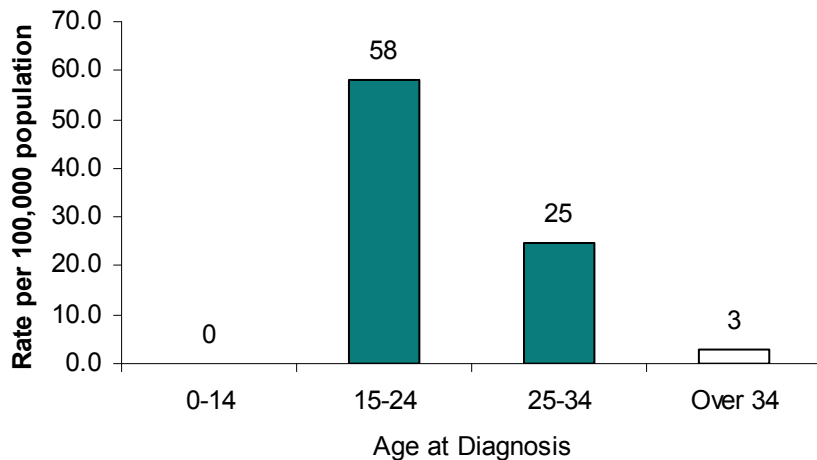
**Figure 13. Gonorrhea Incidence Rate, 2000-2008**



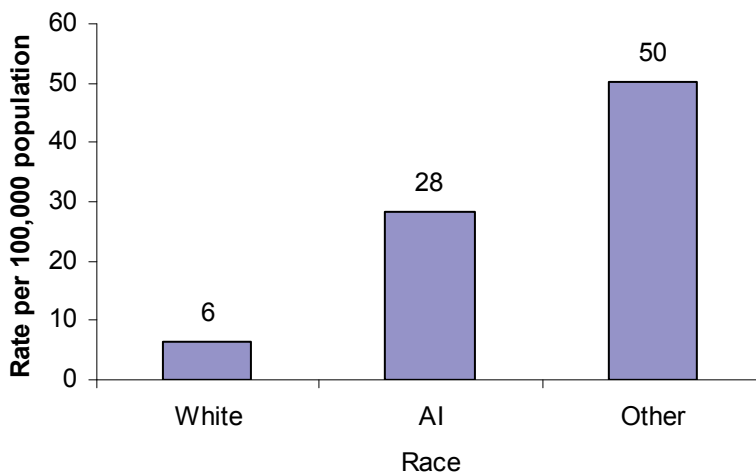
Besides a small increase in incidence in 2005 and 2006, the rate of gonorrhea infections has remained between 12-14 cases/100,000 population since 2001 (Figure 13). The national incidence rate for gonorrhea was 119 cases/100,000 population in 2007.

**Figure 14. Gonorrhea Rates by Age Group, 2008**

In 2008, the majority of gonorrhea cases were reported among persons aged 15-24, which also had the highest rate per population (Figure 14). As with chlamydia, this may be indicative of more screening in this age group.



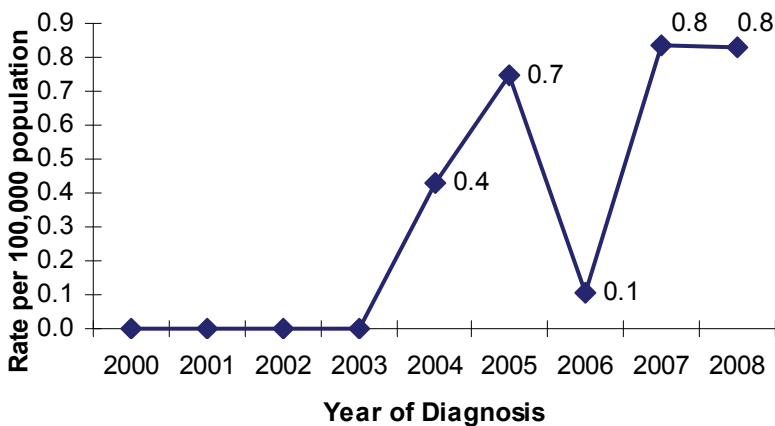
**Figure 15. Gonorrhea Rates by Race, 2008**



The incidence rate for gonorrhea in 2008 was highest in persons reporting races other than White or American Indian at 50 cases per 100,000 population (Figure 15). Of importance is the fact that 41 of the 124 cases (33%) of gonorrhea reported this year had no reported race, which may lead to an underestimate of disease burden to other races.

## Primary and Secondary Syphilis

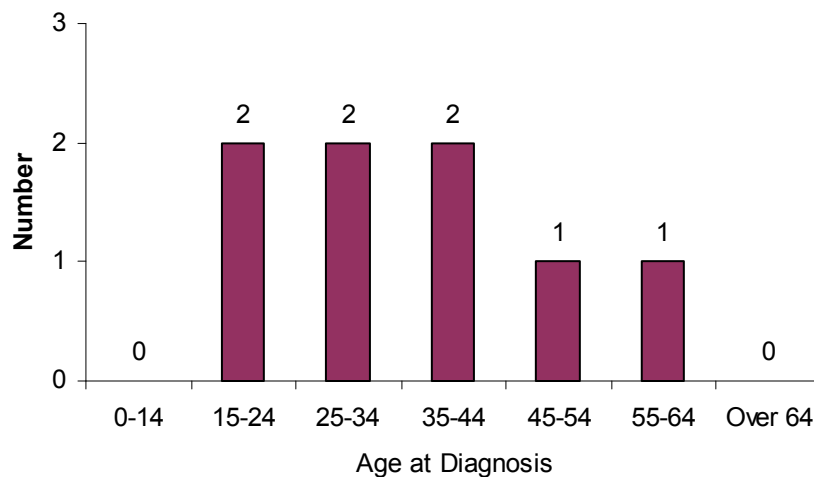
**Figure 16. Syphilis Incidence Rate, 2000-2008**



As in the United States as a whole, the incidence rate of syphilis has increased in Montana since 2000 (Figure 16). In the United States in 2007, the incidence rate for syphilis was 3.8 cases/100,000 population, while Montana's was 0.8.

**Figure 17. Number of Syphilis Cases by Age Group, 2008**

In 2008 at least one syphilis case occurred in each age group from 15-64 (Figure 17). Nationally, the highest rate of syphilis infections was reported for persons aged 25-29 in 2007.



**Figure 18. Number of Syphilis Cases by Race, 2008**

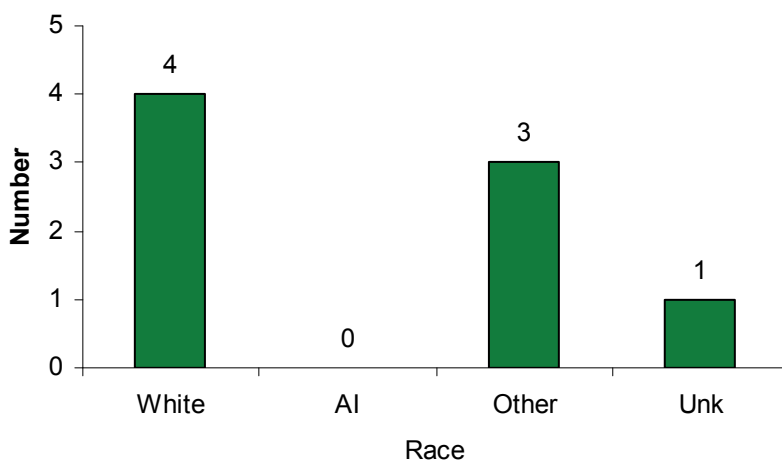


Figure 8 shows the number of syphilis cases by race. Most cases were among people of White race and other races. One case was reported with no information on race.

### Geography

Chlamydia and gonorrhea occur throughout the state (Figures 19 and 20). Chlamydia case rates were higher near larger cities and near American Indian reservations. Access to health care and/or availability of screening may be contributing to the higher case rates on reservations. Gonorrhea case rates were only calculated for counties with more than 1 case. Case counts for syphilis were too small in 2008 to calculate case rates by county. The 8 cases reported in 2008 were reported from 5 different counties (not shown).

Figure 19. Case Rates of Reported Chlamydia Infections, by County, 2008

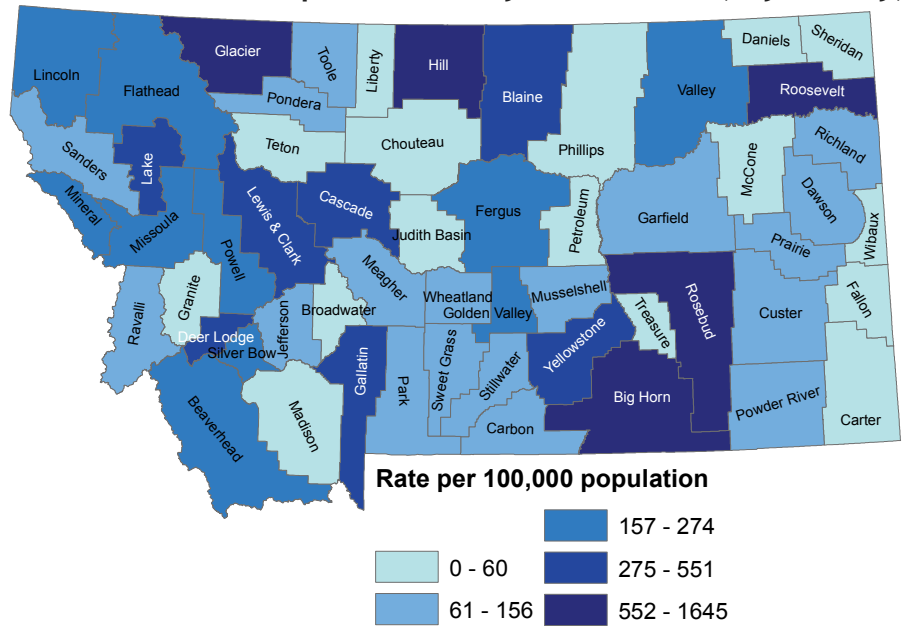
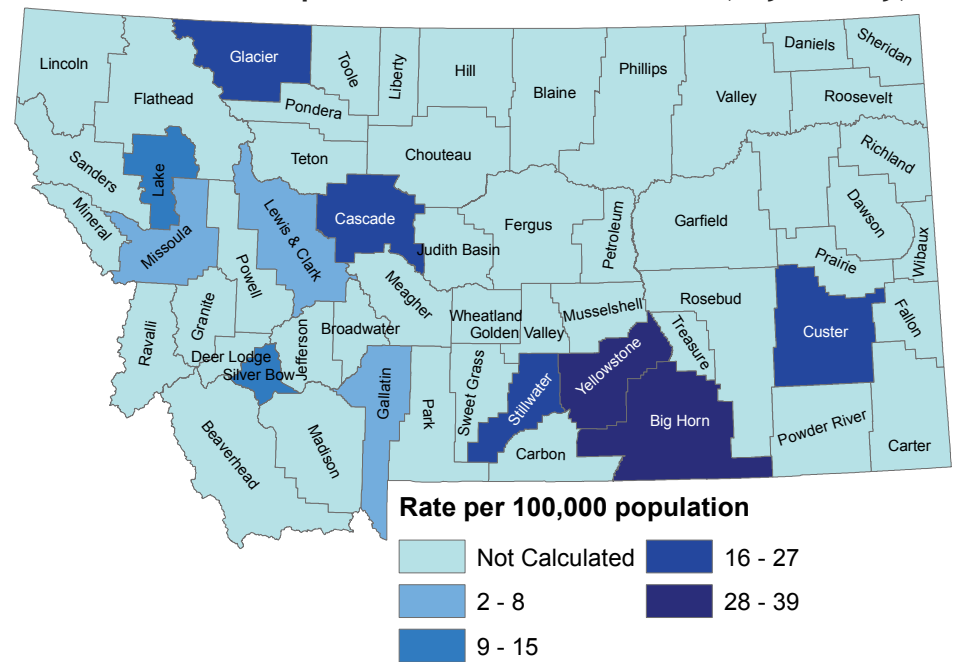
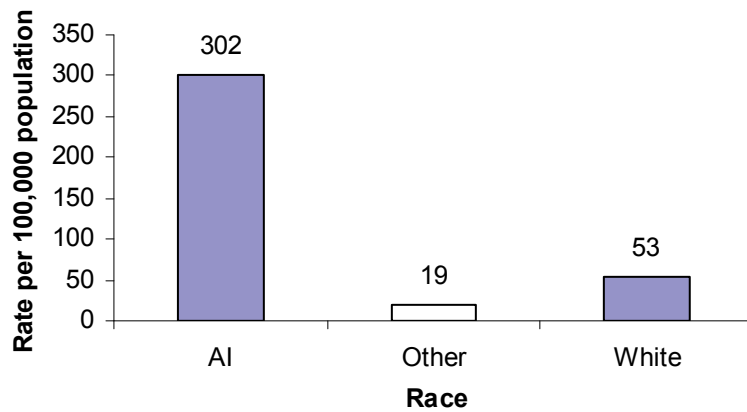


Figure 20. Case Rates of Reported Gonorrhea Infections, by County, 2008



# Hepatitis C

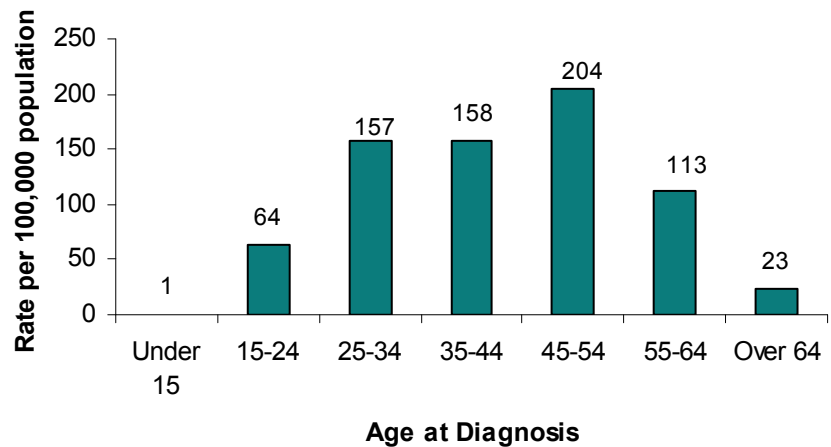
**Figure 21. Hepatitis C Cases by Race, 2008**



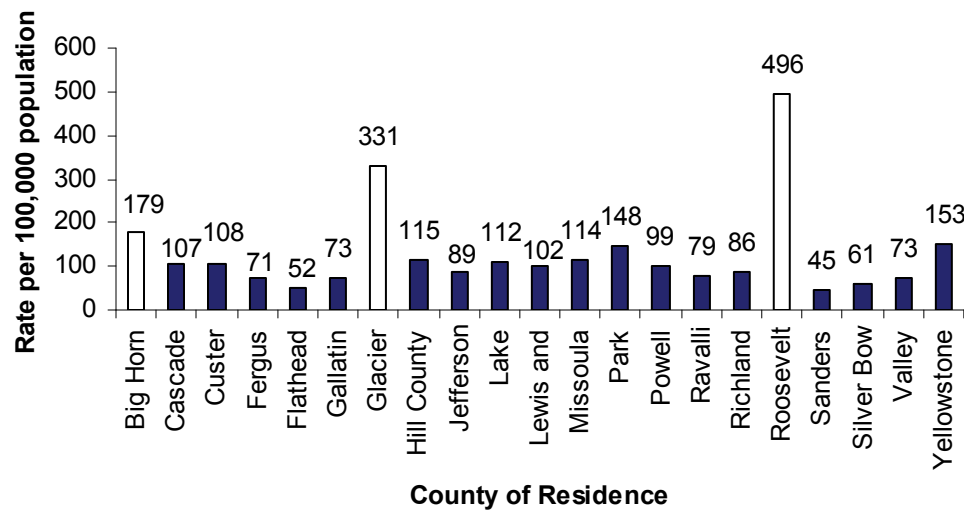
In 2008, there were 943 cases of hepatitis C (chronic and acute) reported in Montana. The reported rate for American Indians was nearly 6 times higher than that for Whites (Figure 21). As was the case with other STDs, the number of cases reported with no race was substantial (30%) and may lead to underestimates of the disease burden for other races.

The most common age group for newly reported hepatitis C cases was 45-54, which also represented the highest case rate (Figure 22). Of importance is the number of persons under 24 newly reported with hepatitis C as it indicates transmission occurring at a young age, most likely from injection drug use.

**Figure 22. Hepatitis C Rates by Age Group, 2008**

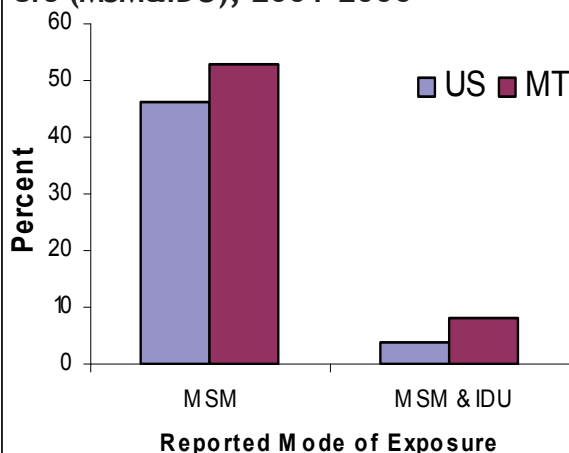


**Figure 23. Hepatitis C Rates by County, 2008**

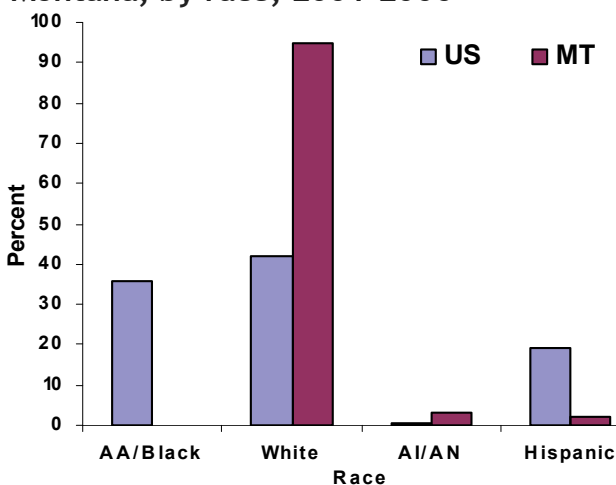


Reported rates were higher for Glacier and Roosevelt counties than in other counties in 2008 (Figure 23). The overall rate for Montana was 97 cases/100,000 population in 2008.

**Figure 24. Of reported newly diagnosed HIV/AIDS cases, the percent among men who have sex with men (MSM) and MSM who are illicit drug users (MSM&IDU), 2001-2006**



**Figure 25. Reported newly diagnosed HIV/AIDS cases among men who have sex with men (MSM), United States and Montana, by race, 2001-2006**



The CDC recently reported an 8.6% increase in new HIV/AIDS diagnoses among men who have sex with men (MSM) from 2001 to 2006 in the United States.\*<sup>4</sup> The largest increases in new diagnoses were among African American/Blacks and those in the 13-24 age range. In Montana, the majority of reported new HIV/AIDS diagnoses are being diagnosed in White MSM, aged 25-44. During 2001-2006, 116 new HIV/AIDS diagnoses were reported in Montana. Of these diagnoses, 61 (53%) were among MSM compared with 46% of reported new HIV/AIDS diagnoses in the US for the same time period. Eight percent of reported Montana HIV/AIDS cases were among men who reported both MSM & illicit injection-drug use (IDU) while MSM & IDU represented 4% of reported HIV/AIDS cases in the US (Figure 24). By race, 95% of new HIV/AIDS cases in Montana were among White men. In contrast, in the US, 42% of reported HIV/AIDS cases among MSM were White (Figure 25). These data emphasize a need in HIV/AIDS prevention among MSM and MSM & IDU in Montana, especially in the White population.

\*33 states with confidential name-based reporting since at least 2001

**Table 8. Cumulative Reported HIV/AIDS and Hepatitis C Co-infections\*, 1985-2008**

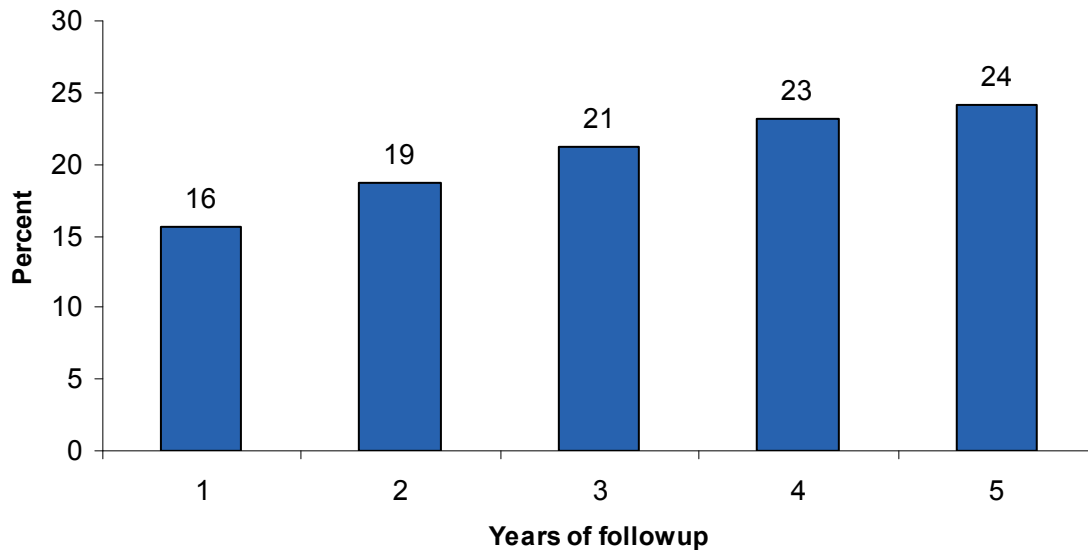
<i>Mode of Exposure to HIV</i>	<i>Male (%)</i>	<i>Female (%)</i>	<i>Total (%)</i>
Men who have sex with Men (MSM)	24 (100)	N/A	24 (25)
Injection Drug Use (IDU)	19 (66)	10 (34)	29 (30)
MSM & IDU	25 (100)	N/A	25 (26)
High Risk Heterosexual (HRH)	2 (25)	6 (75)	8 (8)
Other (Transfusion, transplant, coagulation disorder)	4 (100)	0 (0)	4 (4)
Risk not Specified	6 (86)	1 (14)	7 (7)
<b>Total</b>	<b>80 (82)</b>	<b>17 (18)</b>	<b>97 (100)</b>

Co-infection with HIV/hepatitis C was most common among men who reported a possible mode of exposure to HIV as MSM or MSM who are also IDU. For females co-infected with HIV/hepatitis C, the most common risk reported for exposure to HIV was IDU. Overall, IDU was the most frequent risk factor among persons co-infected with HIV and hepatitis C (Table 8).

\* No formal reporting system is in place for reporting co-infection, therefore these data are preliminary.



**Figure 26. Percent of People Diagnosed with an STD\* in 2002 Who Had At Least One Subsequent STD Diagnosis in 5 Years or Less, Montana, 2002-2007**



STDs remain a major public health challenge in the United States. The CDC estimate that approximately 19 million new infections of chlamydia and gonorrhea occur each year. These infections are the first and second most frequently reported notifiable diseases in the country and both are estimated to be severely underreported<sup>5</sup>. In Montana, the rate of chlamydia diagnoses has been increasing since 2000 (Figure 10) with small changes in the rate of gonorrhea diagnoses (Figure 13). The rate of syphilis cases has been slowly increasing since 2003 (Figure 16). Figure 26 shows the percent of people initially diagnosed with an STD in 2002 who went on to have at least one subsequent STD diagnosis in the following five years. After 1 year of follow-up, 16% of cases from 2002 had been diagnosed with another STD (either the same disease or another) and at the end of 5 years, 24% had received a subsequent STD diagnosis. Furthermore, 6% of cases diagnosed in 2002 had 2 subsequent STD diagnoses in a 5-year period (data not shown). These data suggest the need for increased education and prevention efforts at the time of initial STD diagnosis as well as treatment for partners. STD infections can increase the risk of HIV transmission and cause a variety of complications, including infertility.

\**Chlamydia trachomatis* (Chlamydia), *Neisseria gonorrhoeae* (Gonorrhea), *Treponema palladium* (Syphilis)

	Cases Reported in 2008									
	Chlamydia					Gonorrhea				
	AI	White	Other	Unknown	Total	AI	White	Other	Unknown	Total
BEAVERHEAD	2	8	1	7	18	0	0	0	0	0
BIG HORN	127	6	1	4	138	2	2	0	1	5
BLAINE	24	1	0	2	27	0	0	0	0	0
BROADWATER	0	0	0	0	0	0	0	0	0	0
CARBON	0	4	0	5	9	0	0	0	0	0
CASCADE	38	175	41	85	339	5	9	3	4	21
CHOUTEAU	0	1	0	0	1	0	0	0	0	0
CUSTER	0	14	0	2	16	0	2	0	1	3
DANIELS	0	0	0	0	0	0	0	0	0	0
DAWSON	0	5	2	2	9	0	0	0	1	1
DEER LODGE	2	17	3	7	29	0	0	0	1	1
FALLON	0	1	0	0	1	0	0	0	0	0
FERGUS	0	9	0	10	19	0	1	0	0	1
FLATHEAD	5	154	5	34	198	0	1	0	0	1
GALLATIN	4	191	21	70	286	0	4	0	3	7
GARFIELD	0	1	0	0	1	0	0	0	0	0
GLACIER	106	4	0	5	115	2	1	0	0	3
GOLDEN VALLEY	0	2	0	0	2	0	0	0	0	0
GRANITE	0	0	0	0	0	0	0	0	0	0
HILL	84	25	4	16	129	1	0	0	0	1
JEFFERSON	1	11	0	2	14	0	0	0	0	0
JUDITH BASIN	0	0	0	0	0	0	0	0	0	0
LAKE	74	28	8	48	158	3	0	1	0	4
LEWIS AND CLARK	6	113	2	95	216	0	1	0	3	4
LIBERTY	0	1	0	0	1	0	0	0	0	0
LINCOLN	1	23	1	8	33	0	1	0	0	1
MADISON	0	2	0	1	3	0	0	0	0	0
MCCONE	0	1	0	0	1	0	0	0	0	0
MEAGHER	0	2	0	0	2	0	0	0	0	0
MINERAL	0	7	0	1	8	0	0	0	0	0
MISSOULA	4	162	6	109	281	1	1	0	4	6
MUSSELSHELL	0	3	1	3	7	0	0	0	0	0
PARK	0	6	0	6	12	0	0	0	1	1
PETROLEUM	0	0	0	0	0	0	0	0	0	0
PHILLIPS	1	0	0	0	1	0	0	0	0	0
PONDERA	1	2	0	2	5	0	0	0	0	0
POWDER RIVER	0	1	0	1	2	0	0	0	0	0
POWELL	0	9	0	4	13	0	0	0	0	0
PRAIRIE	0	0	1	0	1	0	0	0	0	0
RAVALLI	1	35	0	20	56	0	0	0	1	1
RICHLAND	1	10	0	3	14	0	0	0	0	0
ROOSEVELT	159	2	0	5	166	1	0	0	0	1
ROSEBUD	94	2	0	1	97	1	0	0	0	1
SANDERS	1	11	1	0	13	0	0	0	0	0
SHERIDAN	0	0	0	1	1	0	0	0	0	0
SILVER BOW	1	46	1	42	90	0	3	0	2	5
STILLWATER	0	8	0	4	12	0	1	0	1	2
SWEET GRASS	1	1	0	2	4	0	0	0	0	0
TETON	0	2	0	0	2	0	0	0	0	0
TOOLE	0	4	0	0	4	0	0	0	0	0
VALLEY	4	6	1	3	14	0	1	0	0	1
WHEATLAND	0	2	0	0	2	0	1	0	0	1
YELLOWSTONE	31	299	27	182	539	2	28	4	18	52
<b>TOTAL</b>	<b>773</b>	<b>1417</b>	<b>127</b>	<b>792</b>	<b>3109</b>	<b>18</b>	<b>57</b>	<b>8</b>	<b>41</b>	<b>124</b>

	Cases Reported in 2008										Grand Total	
	Syphilis					Hepatitis C						
	AI	White	Other	Unknown	Total	AI	White	Other	Unknown	Total		
BEAVERHEAD	0	0	0	0	0	0	0	4	0	0	4	44
BIG HORN	0	0	0	0	0	22	1	0	0	23	332	
BLAINE	0	0	0	0	0	3	0	0	0	3	60	
BROADWATER	0	0	0	0	0	0	1	0	2	3	6	
CARBON	0	0	0	0	0	0	1	0	1	2	22	
CASCADE	0	0	0	0	0	19	36	1	33	88	897	
CHOUTEAU	0	0	0	0	0	0	0	0	0	0	2	
CUSTER	0	0	0	0	0	1	10	0	1	12	62	
DANIELS	0	0	0	0	0	0	0	0	1	1	2	
DAWSON	0	0	0	0	0	1	2	0	0	3	26	
DEER LODGE	0	0	0	0	0	0	2	0	2	4	68	
FALLON	0	0	0	0	0	0	0	0	0	0	2	
FERGUS	0	0	0	0	0	0	7	0	1	8	56	
FLATHEAD	0	0	1	0	1	0	33	0	13	46	492	
GALLATIN	0	1	0	0	1	1	42	0	24	66	721	
GARFIELD	0	0	0	0	0	0	0	0	0	0	2	
GLACIER	0	0	0	0	0	40	3	0	2	44	325	
GOLDEN VALLEY	0	0	0	0	0	0	0	0	0	0	4	
GRANITE	0	0	1	0	1	0	0	0	0	0	2	
HILL	0	0	0	0	0	17	1	0	1	19	298	
JEFFERSON	0	0	0	0	0	0	6	0	4	10	48	
JUDITH BASIN	0	0	0	0	0	0	2	0	0	2	4	
LAKE	0	0	0	0	0	10	10	0	12	32	388	
LEWIS AND CLARK	0	0	0	0	0	2	42	0	18	62	564	
LIBERTY	0	0	0	0	0	0	0	0	0	0	2	
LINCOLN	0	0	0	0	0	0	1	0	2	3	74	
MADISON	0	0	0	0	0	0	1	0	1	2	10	
MCCONE	0	0	0	0	0	0	0	0	0	0	2	
MEAGHER	0	0	0	0	0	0	0	0	1	1	6	
MINERAL	0	0	0	0	0	0	0	0	1	1	18	
MISSOULA	0	1	1	0	2	5	65	0	52	122	822	
MUSSELSHELL	0	0	0	0	0	0	2	0	0	2	18	
PARK	0	0	0	0	0	0	15	0	9	24	74	
PETROLEUM	0	0	0	0	0	0	0	0	0	0	0	
PHILLIPS	0	0	0	0	0	0	0	0	1	1	4	
PONDERA	0	0	0	0	0	0	0	0	0	0	10	
POWDER RIVER	0	0	0	0	0	0	0	0	0	0	4	
POWELL	0	0	0	0	0	0	4	0	3	7	40	
PRAIRIE	0	0	0	0	0	0	0	0	0	0	2	
RAVALLI	0	0	0	0	0	0	22	0	10	32	178	
RICHLAND	0	0	0	0	0	0	4	0	4	8	44	
ROOSEVELT	0	0	0	0	0	47	1	0	2	50	434	
ROSEBUD	0	0	0	0	0	3	0	0	0	3	202	
SANDERS	0	0	0	0	0	2	2	0	1	5	36	
SHERIDAN	0	0	0	0	0	0	0	0	0	0	2	
SILVER BOW	0	0	0	0	0	0	17	0	3	20	230	
STILLWATER	0	0	0	0	0	0	0	0	0	0	28	
SWEET GRASS	0	0	0	0	0	0	1	0	0	1	10	
TETON	0	0	0	0	0	0	0	0	0	0	4	
TOOLE	0	0	0	0	0	2	1	0	0	3	14	
VALLEY	0	0	0	0	0	1	3	0	1	5	40	
WHEATLAND	0	0	0	0	0	0	0	0	0	0	6	
YELLOWSTONE	0	2	0	1	3	17	120	2	79	218	1624	
TOTAL	0	4	3	1	8	193	462	3	285	943	4184	

**ACS (American Community Survey)**- Nationwide survey designed to provide updated estimates for information such as race, age, income, home value, etc., between census years

**ADAP (AIDS Drug Assistance Program)**- Provides HIV/AIDS-related prescription drugs to uninsured or underinsured people living with HIV/AIDS

**AIDS (Acquired Immune Deficiency Syndrome)**- The condition that results after HIV infection defined by a clinical diagnosis of one of the 26 opportunistic infections or CD4 positive lymphocyte count below 200 or 14%

**BRFSS (Behavioral Risk Factor Surveillance System)**- Phone based survey that collects state-based information on health risk behaviors among adult populations

**CARE Act (Comprehensive AIDS Resources Emergency Act)**- Federal legislation created to address the health and support needs of persons living with HIV/AIDS and their families in the United States

**CDC (Centers for Disease Control and Prevention)**- Federal offices concerned with maintaining the health of the nation's population

**HAART (Highly Active Antiretroviral Therapy)**- Combination prescription drug therapy for persons living with HIV/AIDS

**HIV (Human Immunodeficiency Virus)**- The virus that causes AIDS, which is spread through blood products, sexual fluids, and from mother to baby. HIV is diagnosed by 1) positive result on a screening test for HIV antibody, i.e., reactive enzyme immunoassay followed by a positive confirmatory test, i.e., Western Blot or immunofluorescence antibody test or 2) a positive result or a detectable quantity on a virologic test, i.e., polymerase chain reaction, neutralization assay, or culture

**HRH (High Risk Heterosexual)**- Adults or adolescents 13 years of age or older who have a history of sexual contact with bisexual males, injecting drug users, persons with hemophilia, HIV-infected transfusion recipient, or other HIV-infected persons.

**IDU (Injecting Drug User)**- Adults or adolescents 13 years of age or older who have injected illicit or nonprescription drugs

**MSM (Men Having Sex with Men)**- Male adults or adolescents 13 years of age or older who report sexual contact with other men, e.g., homosexual contact or men who report sexual contact with both men or women, e.g., bisexual contact

**MSM/IDU (Men Having Sex with Men and who are Injecting Drug Users)**- Men who report both sexual contact with other men and injecting illicit or nonprescription drugs

**NRS (No Risk Specified)**- Persons who have no reported method of exposure to HIV, as defined by CDC

**MTDPHHS (Montana Department of Public Health and Human Services)**

**Other (Other risk)**- Includes persons who received clotting factors to treat hemophilia or coagulation disorders, recipients of blood transfusion, recipients of organ transplants, and children infected perinatally

**STD (Sexually Transmitted Disease)**- A group of diseases that are transmitted through sexual contact, usually including gonorrhea, herpes, HIV/AIDS, chlamydia, syphilis, genital warts, and less often, but possible, hepatitis C

**Endnotes**

1. Montana PHSD-County Health Profiles-Data. 2008.  
<http://www.dphhs.mt.gov/PHSD/health-profiles/health-profiles-pronotes.shtml#density>
2. Centers for Disease Control and Prevention. Persons tested for HIV-United States, 2006. MMWR 2008; 57:845-849.
3. Ryan White. 2008. <http://www.ryanwhite.com/pages/story.html>
4. Centers for Disease Control and Prevention. Trends in HIV/AIDS Diagnoses Among Men Who Have Sex with Men -33 States, 2001-2006. MMWR 2008; 57:682-686.
5. CDC. Trends in Reportable Sexually Transmitted Diseases in the United States, 2007.  
<http://www.cdc.gov/std/stats07/trends.htm>.

**Data sources:**

1. Montana HIV/AIDS Surveillance Database (eHARS), funded by the Centers for Disease Control and Prevention (CDC)
2. American Community Survey (ACS)
3. Montana Department of Commerce
4. Montana STD Surveillance Database (STD\*MIS), funded by the CDC
5. Montana NEDSS Based Surveillance System, funded by the CDC

*Data as of: December 31, 2008*