

January-February-March 2009

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2008 HIV/AIDS Summary

North Dakota ranks near the bottom in incidence of HIV/AIDS in the United States. According to the U.S. Centers for Disease Control and Prevention, state-specific AIDS incidence rates per 100,000 people ranged from 1.0 in Vermont to 24.9 in New York for 2007. North Dakota was ranked 49th with a rate of 1.3 per 100,000 people. Similar comparisons for HIV (non-AIDS) incidence rates are not possible because some states require only AIDS case reporting.

A total of 28 HIV/AIDS cases were reported to the North Dakota Department of Health (NDDoH) in 2008. This total includes newly diagnosed cases and cases diagnosed previously in other states who moved to North Dakota during 2008.

In 2008, 14 new cases were diagnosed in North Dakota residents and reported to the NDDoH. Four of the newly diagnosed HIV cases were advanced enough to meet the case definition for AIDS at the time of diagnosis. **Table 1** summarizes newly diagnosed HIV and AIDS cases for 2008 and compares data to the same time period in 2007.

Cumulative (1984–2008) HIV/AIDS Cases, North Dakota

HIV and AIDS have been reportable conditions in North Dakota since 1984. The cumulative reported infections include cases newly diagnosed in the state, as well as cases diagnosed elsewhere who moved to North Dakota.

As of Dec. 31, 2008, a cumulative total of 441 HIV/AIDS cases had been reported in North Dakota, including 162 AIDS cases and 279 HIV (non-AIDS) cases. Of the cumulative total HIV/AIDS cases, 188 are known to still be living in North Dakota.

Of the 188 HIV/AIDS cases still living in North Dakota:

- 78 percent were male; 22 percent female.
- 69 percent of reported cases were between the ages of 25 and 44 at diagnosis.
- 71 percent were white, 10 percent were American Indian, 15 percent were black, 4 percent were Hispanic and 1 percent were Asian/Pacific Islander.
- The most frequently indicated risk factors were male-to-male sexual contact, 44 percent; heterosexual contact, 33 percent; and injecting drug use, 10 percent.

Table 1 summarizes the cumulative HIV/AIDS cases still living in North Dakota.

HIV/AIDS Incidence 2004 - 2008

HIV/AIDS incidence refers to cases that were diagnosed in North Dakota within a given time frame. The AIDS cases reported in this section met the criteria for AIDS at HIV diagnosis.

From 2004 to 2008, 62 HIV/AIDS cases were diagnosed in North Dakota. Thirty-seven percent met the criteria for AIDS at HIV diagnosis, while 63 percent were diagnosed as HIV (non-AIDS). Ninety-one percent were male and 19 percent were female.

Figure 1 shows the age groups of HIV/AIDS cases diagnosed in North Dakota between 2004 and 2008. HIV/AIDS seems to infect young adults more frequently than any other age group; however, infections among older adults are increasing. The 30- to 39-year-old age group made up the largest proportion of the HIV/AIDS cases diagnosed during that time period. Eighty-four percent of the cases were between the ages of 20 and 49.

Table 1. New HIV and AIDS Diagnoses by Race/Ethnicity, Gender, Exposure Risk, and Age at Diagnosis, North Dakota 2007-2008

	New HIV/AIDS cases ¹				Total HIV/AIDS Cases Living in ND ²	
	2008		2007		Number	Percent*
	Number	Percent*	Number	Percent*		
Diagnosis						
AIDS	4	29%	3	25%	94	50%
HIV	10	71%	9	75%	94	50%
Race/Ethnicity						
American Indian	1	7%	0	0%	18	10%
Black	2	14%	2	17%	28	15%
Hispanic (all races)	0	0%	0	0%	7	4%
Asian/Pacific Islander	0	0%	0	0%	2	1%
White	11	79%	10	83%	133	71%
Gender						
Male	13	93%	7	58%	147	78%
Female	1	7%	5	42%	41	22%
Risk						
Heterosexual contact	4	29%	4	33%	62	33%
Injecting drug use (IDU)	0	0%	1	8%	19	10%
Male-to-male sexual contact (MSM)	6	43%	5	42%	83	44%
MSM/IDU	2	14%	0	0%	9	5%
Perinatal transmission	0	0%	1	8%	3	2%
Adult hemophilia/coagulation disorder	1	7%	0	0%	2	1%
Receipt of blood or tissue	0	0%	0	0%	1	1%
Risk not specified	1	7%	1	8%	7	4%
Age Group at Diagnosis						
≤14	0	0%	1	8%	3	2%
15-24	2	14%	1	8%	19	10%
25-34	3	21%	1	8%	70	37%
35-44	6	43%	5	42%	60	32%
45-54	2	14%	2	17%	28	15%
55-64	0	0%	2	17%	7	4%
65+	1	7%	0	0%	1	1%
Total		14		12		188

*Due to rounding, totals may not equal 100%.

¹New HIV/AIDS cases reflects HIV cases that were newly diagnosed in North Dakota during the listed time period. These cases include those which are classified as AIDS cases at initial diagnosis.

²Total HIV/AIDS cases living in ND reflect HIV/AIDS cases which were alive and residing in North Dakota as of December 31, 2008.

Race/Ethnicity of HIV/AIDS Cases Diagnosed in North Dakota 2004-2008

Racial and ethnic minorities continue to be disproportionately affected by HIV in the United States. Twenty-four percent of HIV/AIDS cases diagnosed in North Dakota between 2004 and 2008 are black. It is important to note that 80 percent of the black cases were not born in the United States. This means that U.S.-born black cases make up 3 percent of all cases diagnosed in North Dakota between 2004 and 2008. Six percent of

HIV/AIDS cases diagnosed in North Dakota between 2004 and 2008 are American Indian. (Figure 2)

Risk Factors of HIV/AIDS Cases Diagnosed in North Dakota 2004-2008

Male-to-male sexual relations continues to be the most frequently reported risk factor among HIV/AIDS cases diagnosed in North Dakota. Forty-seven percent of the cases diagnosed between 2004 and 2008 claimed to have male-to-male sexual relations. Thirty-two percent of the cases diagnosed during this time period reported having

heterosexual relations. Six percent of the cases claimed to have used intravenous drugs, and 5 percent claimed to have used intravenous drugs and had male-to-male sexual relations. (Figure 3)

Figure 1. Age of HIV/AIDS cases diagnosed in ND 2004 – 2008

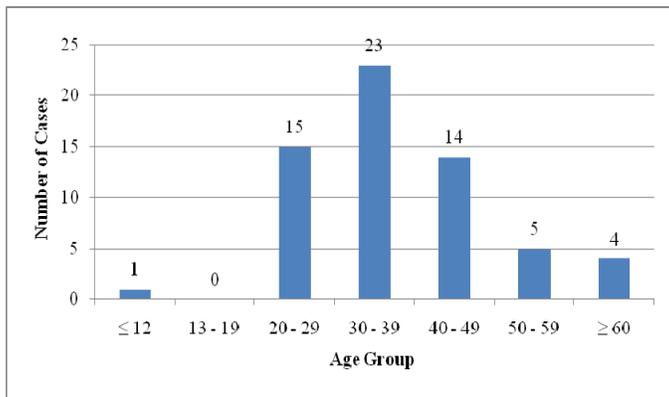


Figure 2. Race/Ethnicity of HIV/AIDS cases diagnosed in ND 2004 – 2008

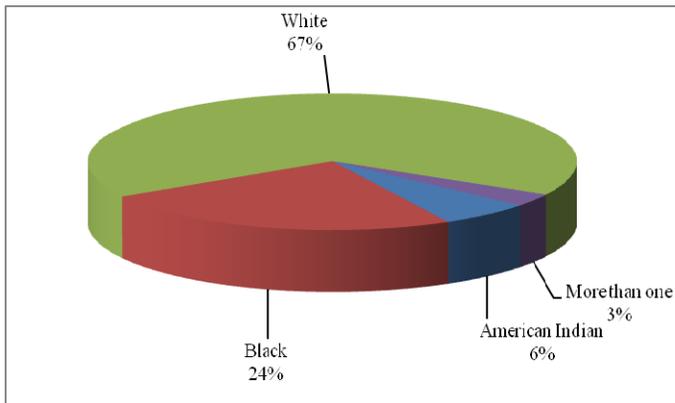
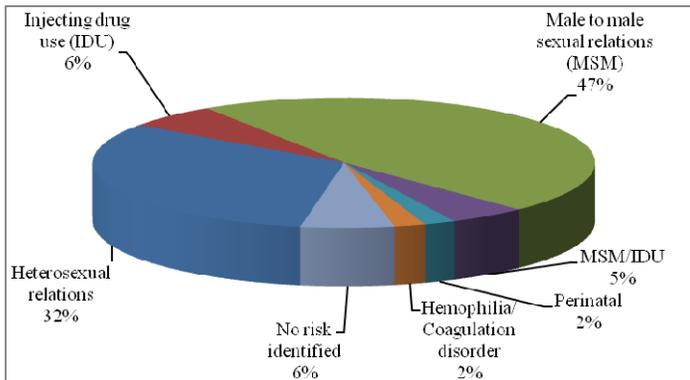


Figure 3. Risk factors of HIV/AIDS cases diagnosed in ND 2004 – 2008



2008 Tuberculosis Epidemiology Report

TB in North Dakota – 2008

In 2008, three cases of tuberculosis (TB) were reported in North Dakota. With an incidence rate of 0.5 per 100,000,

the North Dakota rate continues to be below the national rate. (Figure 4)

All three of the tuberculosis cases were pulmonary disease. The ages of the tuberculosis cases ranged from 19 to 63, with a median age of 42. One case was white, one was Asian, and one was American Indian.

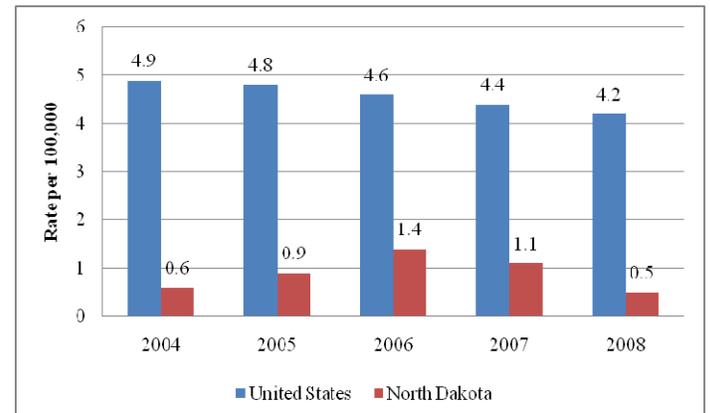
Risk factors associated with tuberculosis in 2008 included belonging to a high-risk racial/ethnic group, being foreign-born and having prior tuberculosis infection.

No tuberculosis-related deaths were reported in 2008.

TB in North Dakota – 2004 – 2008

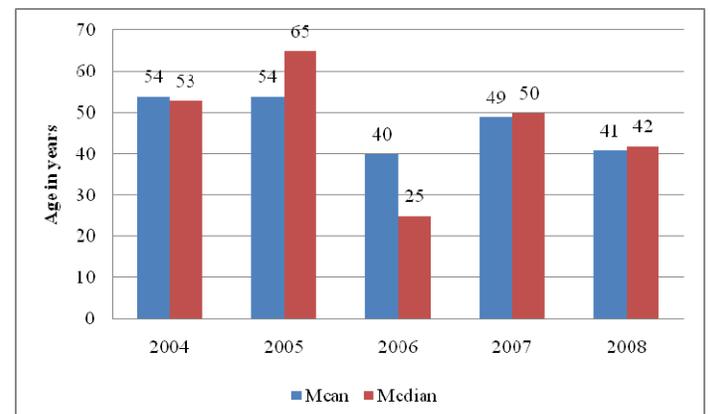
From 2004 through 2008, 30 cases of tuberculosis were reported in North Dakota. The number of annual tuberculosis cases ranged from three to 10, resulting in an incidence rate between 0.5 and 1.4 per 100,000.

Figure 4. United States and North Dakota tuberculosis disease rates, 2004 – 2008.



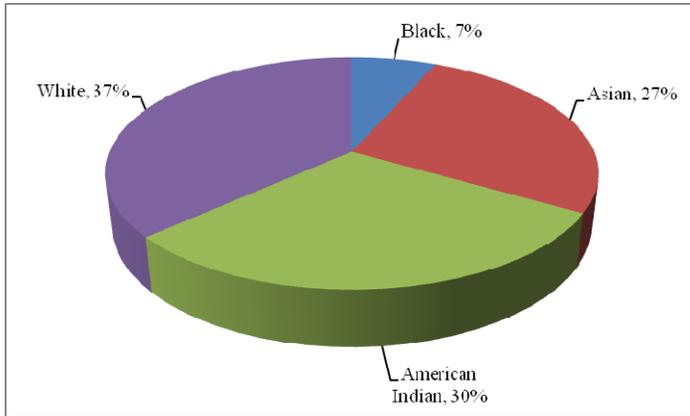
Of the 30 cases, 17 were pulmonary (56%), 10 were extra-pulmonary (38%) and three were pulmonary/extra-pulmonary (6%). The mean and median ages of tuberculosis cases during the past five years were 48 and 47, respectively. (Figure 5)

Figure 5. Tuberculosis by age, North Dakota, 2004 – 2008.



The race/ethnicity of tuberculosis cases during the past five years shows a disproportionately high number of the cases reported among minority populations. Cumulatively, American Indians, blacks and Asians account for only seven percent of North Dakota's population but more than half of the state's reported TB cases. (Figure 6)

Figure 6. Percentage of tuberculosis cases by race/ethnicity, North Dakota, 2004 – 2008.



An increase in the state's racial/ethnic populations during the past few years has contributed to the increased number of tuberculosis cases reported in minority racial/ethnic groups. While the number of foreign-born people in the state represents less than 2 percent of the state's total population, it increased 29 percent between 1990 and 2000.

Drug-Resistant Tuberculosis

Drug resistant tuberculosis (DR-TB) and multi-drug resistant tuberculosis (MDR-TB) present difficult problems for tuberculosis control. This is due to the complicated treatment regimen for the index case and the treatment of latent tuberculosis infection in contacts to the index case. The contact's treatment regimen must be individualized based on the index case's medication history and drug susceptibility studies.

With the increase in foreign-born populations entering the United States and North Dakota, the potential exists for an increase of DR-TB. During the past five years, however, no cases of multidrug-resistant tuberculosis have been identified in North Dakota. Furthermore, only one case of single-drug resistance has been ever been identified in the state; an isolate in 2002 was resistant to streptomycin.

Latent Tuberculosis Infection

Latent TB infection (LTBI) occurs when individuals are infected with *M. tuberculosis* bacteria through direct exposure to active tuberculosis disease.

People with latent infection do not have active disease and are not infectious. Clinical findings of LTBI normally include a positive tuberculin skin test, absence of symptoms and a normal chest x-ray.

The number of latent tuberculosis infections reported in North Dakota over the past five years is shown in Table 2.

Table 2. Reported cases of LTBI, North Dakota, 2004–2008.

2004	2005	2006	2007	2008
384	315	367	322	415

For more information about tuberculosis, to find a TB controller in your area, or to utilize case studies for training purposes, visit www.ndhealth.gov/disease/tb.

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Save the Date!
Hepatitis C Training Workshop

July 20, 2009
8 A.M. – 5 P.M.
Holiday Inn
Fargo, N.D.

Topics Include:
Symptoms & Disease Progression
Complimentary Medicine
Hepatitis C Transmission & Prevention
Treatments
Disease Management
The Liver
Diagnostic Tools

Watch for more information regarding registration or contact Julie Wagendorf, Hepatitis Program manager, at 701.328.2378.

Course materials including a comprehensive manual and other educational tools included at no cost. Lunch and snacks provided.

Summary of Selected Reportable Conditions

**North Dakota
January – March
2008 – 2009**

Reportable Condition	January-March 2009*	January-March 2008*
Campylobacteriosis	6	8
Chickenpox	38	35
Chlamydia	236	464
Cryptosporidiosis	1	1
<i>E. coli</i> , shiga toxin positive (non-O157)	3	2
<i>E. coli</i> O157:H7	0	0
Enterococcus, Vancomycin-resistant (VRE)	98	87
Giardiasis	6	11
Gonorrhea	9	32
Haemophilus influenzae (invasive)	9	3
Acute Hepatitis A	0	1
Acute Hepatitis B	0	0
Acute Hepatitis C	0	0
HIV/AIDS ¹	6	7
Influenza	1309	3428
Legionellosis	2	1
Listeria	0	0
Lyme Disease	4	0
Malaria	0	0
Meningococcal disease ²	0	1
Mumps	2	2
Pertussis	13	0
Q fever	0	0
Rabies (animal)	3	8
Rocky Mountain spotted fever	0	0
Salmonellosis	19	16
Shigellosis	1	24
<i>Staphylococcus aureus</i> , Methicillin-resistant (MRSA)	42	22
Streptococcal pneumoniae ³ , (invasive, children < 5 years of age)	5	1
Syphilis, Primary and Secondary	0	10
Trichinosis	0	0
Tuberculosis	1	0
Tularemia	0	0
Typhoid fever	0	2
West Nile Virus Infection	0	0

*Provisional data

¹ Includes newly diagnosed cases and cases diagnosed previously in other states that moved to North Dakota

² Includes confirmed, probable and suspect meningococcal meningitis cases.

³ Includes invasive infections caused by streptococcal disease not including those classified as meningitis.