

January-February-March 2012

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2011 HIV/AIDS Summary

North Dakota is among the lowest for incidence of HIV/AIDS in the United States. According to the U.S. Centers for Disease Control and Prevention, estimated state and area-specific AIDS incidence rates per 100,000 people ranged from 0.5 in Vermont to 112.5 in the District of Columbia in 2010. North Dakota had an estimated rate of 0.9 per 100,000 people. North Dakota similarly has a low rate for HIV (non-AIDS) diagnosis, estimated at 2.0 per 100,000 in 2010.

A total of 36 HIV/AIDS cases were reported to the North Dakota Department of Health (NDDoH) in 2011, which includes newly diagnosed cases and cases previously diagnosed in other states who moved to North Dakota.

In 2011, 11 North Dakota residents were newly diagnosed with HIV/AIDS and reported to the NDDoH. One of the cases was advanced enough to meet the case definition for AIDS at the time of diagnosis. **Table 1** summarizes newly diagnosed HIV and AIDS cases for 2011 and compares data to the same time period in 2010.

Cumulative (1984-2011) 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, 2011, a cumulative total of 541 HIV/AIDS cases have been reported in North Dakota; 338 of which are HIV (non-AIDS) cases and 203 are AIDS cases. Of the cumulative total HIV/AIDS cases, 248 are known to still be living in North Dakota.

Of the 248 HIV/AIDS cases still living in North Dakota:

- 78 percent are male; 22 percent female.
- 67 percent are between the ages of 25 and 44 at diagnosis.
- 67 percent are white, 8 percent are American

Indian, 19 percent are black and 4 percent are Hispanic (all races).

- The most frequently indicated risk factors are male-to male sexual contact (46 percent); heterosexual contact (35 percent); and injection drug use (8 percent).

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

HIV/AIDS Incidence 2007-2011

HIV/AIDS incidence refers to cases that were newly 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 2007 to 2011, 65 HIV/AIDS cases were diagnosed in North Dakota. Twenty-eight percent met the criteria for AIDS at diagnosis, while 72 percent were diagnosed as HIV (non-AIDS). Eighty-two percent were male and 18 percent were female.

Figure 1 shows the age groups of HIV/AIDS cases diagnosed in North Dakota between 2007 and 2011. HIV/AIDS infects young adults more frequently than other age groups; however, infections among older adults are increasing. The 35- to 44-year-old age group made up the largest proportion of the HIV/AIDS cases diagnosed during that time period. Seventy-four percent of the cases were between the ages of 25 and 54.

Figure 1. Age of HIV/AIDS cases diagnosed in N.D. 2007-2011

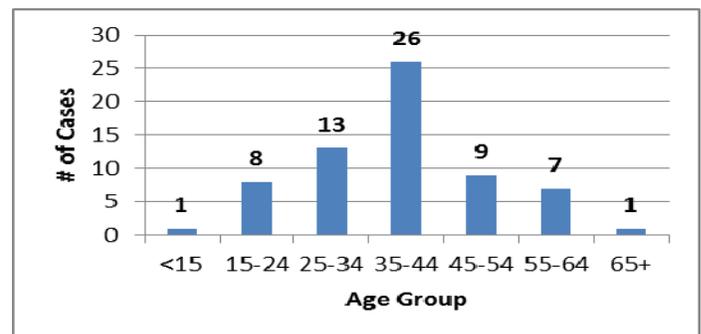


Table 1. New HIV and AIDS Diagnoses by Race/Ethnicity, Gender, Exposure Risk, and Age at Diagnosis, North Dakota 2010-2011.

	New HIV/AIDS cases ¹				Total HIV/AIDS Cases Living in ND ²	
	2010		2011		Number	Percent*
	Number	Percent*	Number	Percent*		
Diagnosis						
HIV	10	77%	10	91%	130	52%
AIDS	3	23%	1	9%	118	48%
Race/Ethnicity						
American Indian	0	0%	0	0%	19	8%
Black	4	31%	1	9%	47	19%
Hispanic (all races)	3	23%	1	9%	11	4%
Asian/Pacific Islander	1	8%	0	0%	2	1%
White	5	38%	9	82%	167	67%
Multi-race (non-Hispanic)	0	0%	0	0%	2	0%
Gender						
Male	9	69%	10	91%	193	78%
Female	4	31%	1	9%	55	22%
Risk						
Heterosexual contact	7	54%	1	9%	86	35%
Injecting drug use (IDU)	1	8%	0	0%	21	8%
Male-to-male sexual contact (MSM)	4	31%	10	91%	113	46%
MSM/IDU	0	0%	0	0%	13	5%
Perinatal transmission	0	0%	0	0%	5	2%
Other	0	0%	0	0%	1	0%
Risk not specified/not reported	1	8%	0	0%	9	4%
Age Group						
<15	0	0%	0	0%	8	3%
15-24	4	31%	1	9%	35	14%
25-34	2	15%	4	36%	89	36%
35-44	4	31%	3	27%	77	31%
45-54	1	8%	1	9%	27	11%
55-64	2	15%	2	18%	12	5%
65+	0	0%	0	0%	0	0%
Total	13		11		248	

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

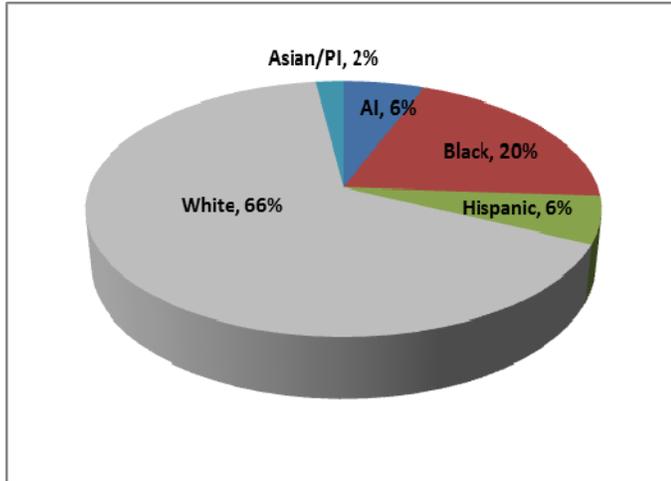
¹New HIV/AIDS cases reflect newly diagnosed cases in North Dakota during the listed time period. These cases include those classified as AIDS cases at initial diagnosis.

²Total HIV/AIDS cases living in N.D. reflect HIV/AIDS cases that were alive and residing in North Dakota as of December 31, 2011.

Race/Ethnicity of HIV/AIDS Cases Diagnosed in North Dakota 2007-2011

Racial and ethnic minorities continue to be disproportionately affected by HIV in the United States. Twenty percent of HIV/AIDS cases diagnosed in North Dakota between 2007 and 2011 were black (Figure 2).

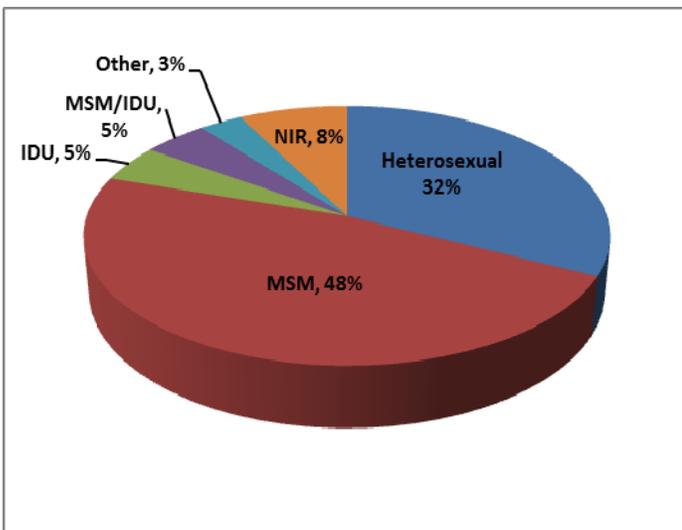
Figure 2. Race/Ethnicity of HIV/AIDS cases diagnosed in N.D. 2007-2011



Risk Factors of HIV/AIDS Cases Diagnosed in North Dakota 2007-2011

Male-to-male sexual contact (MSM) continues to be the most frequently reported risk factor among HIV/AIDS cases diagnosed in North Dakota. Forty-eight percent of the cases diagnosed between 2007 and 2011 claimed to have male-to-male sexual relations. Thirty-two percent of the cases diagnosed during this time period reported having heterosexual relations followed by intravenous drug use (IDU) (5 percent); and IDU and had MSM (3 percent); 8 percent had no identified risk factors (NIR) (Figure 3).

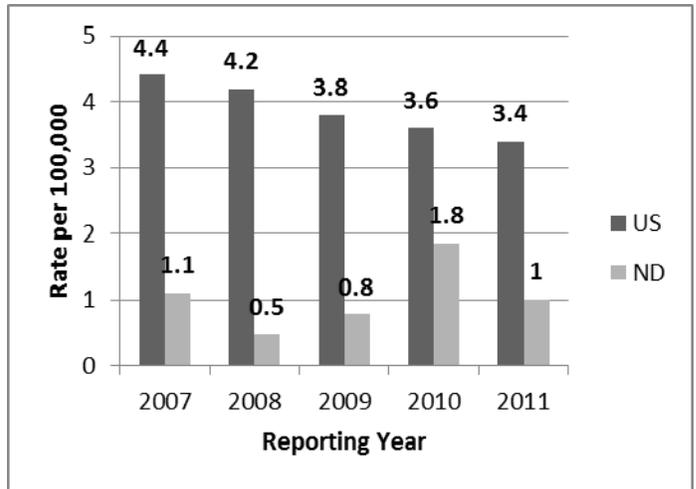
Figure 3. Risk factors of HIV/AIDS cases diagnosed in N.D. 2006–2010



Tuberculosis in North Dakota - 2011

In 2011, it was estimated that about 9 million people became sick with tuberculosis (TB) disease throughout the world. In the U.S., that number was approximately 10,521. North Dakota had seven cases of active TB in 2011, corresponding with an incidence rate of 1.0 new cases for every 100,000 people. North Dakota’s incidence rate historically has been lower than the national rate (Figure 4).

Figure 4. United States and North Dakota Tuberculosis Disease Rates, 2007–2011.



Of the seven cases, four were pulmonary and three were extra-pulmonary.

The TB cases ranged in age from 1 to 47 with a median age of 23. Two cases were male and five were female.

Risk factors associated with the TB cases in North Dakota in 2011 included being part of a racial minority and foreign-born.

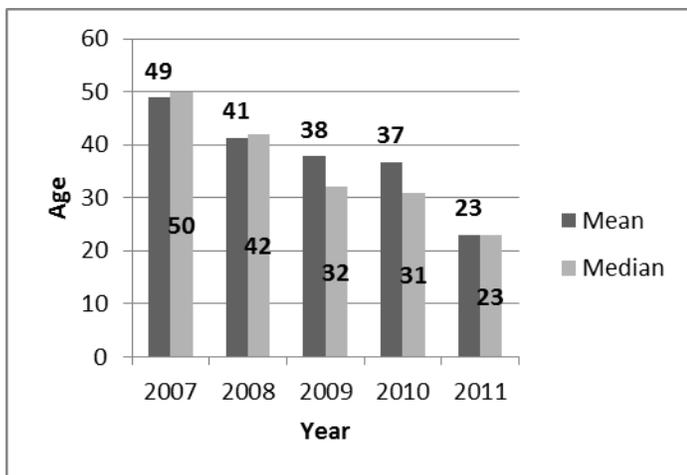
Tuberculosis in North Dakota, 2007-2011

Between 2007 to 2011, there have been 34 cases of reported, active TB. The annual reporting range is from three to twelve cases. The annual incidence rate for the past five years is between 0.5 and 1.8 per 100,000.

In the last five years, 18 of the 34 cases were pulmonary (53%), 13 were extra-pulmonary (38%) and 3 were both pulmonary/extra-pulmonary (9%). The mean age for TB cases in the last five years was 38. The median age was 32 (Figure 5).

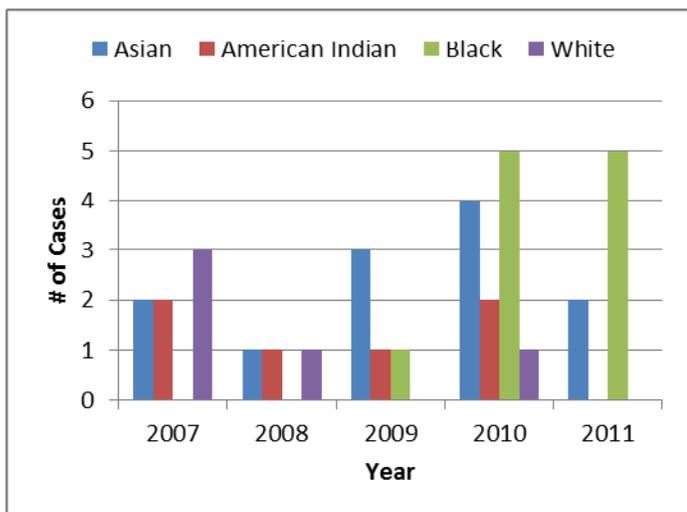
Both men and women were affected by TB in North Dakota during the last five years. There were 16 male cases and 18 female cases.

Figure 5. Tuberculosis by Age, North Dakota, 2007-2011.



In 2011, 90 percent of the population of North Dakota was estimated to be identified as white. TB data from the previous five years shows that individuals of racial and ethnic minorities to be disproportionately affected by TB (Figure 6).

Figure 6. Tuberculosis Cases by Race/Ethnicity, North Dakota, 2007-2011.



Drug-Resistant Tuberculosis

Some forms of TB can develop resistance to certain anti-TB medications. This drug resistant tuberculosis (DR-TB) can be much more complicated and costly to treat than drug susceptible TB, especially if it is a form of multi-drug resistant tuberculosis (MDR-TB). MDR-TB is resistant to the two most commonly used anti-TB drugs, isoniazid and rifampicin.

In North Dakota in 2011, there were no cases of TB that showed drug resistance.

Latent Tuberculosis Infection

Latent tuberculosis infection (LTBI) is an infection of TB in which the disease is in a dormant state. One-third of the global population has TB infection with most of these having LTBI. Individuals with LTBI are not infectious and do not have symptoms of TB disease. Certain methods (such as skin testing) are available to determine if an individual has LTBI. 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, 2007-2011.

2007	2008	2009	2010	2011
322	430	564	574	562



A 2012 Symposium Thank You!

The NDDoH would like to say thank you to the speakers, vendors and attendees of the 2012 HIV/STD/TB/Hepatitis Symposium. Your support ensures a successful symposium and we look forward to seeing you in 2014!

The NDDoH would like to congratulate **JoElle Thomas** from Central Valley Health District and **Custer Family Planning** for receiving awards of excellence at this year’s symposium. JoElle Thomas established the first HIV support group in her community and is committed to addressing the issues of STDs, HIV and hepatitis C in North Dakota. Custer Family Planning is very active in the community by hosting outreach events, such as National HIV Awareness Day in 2011, providing community presentations and also offers counseling, testing and prevention education for STDs, HIV and viral hepatitis. Congratulations and thank you for all of your hard work in the areas of STDs, HIV, TB and viral hepatitis.

The presentations for the symposium can be found at:

www.ndhealth.gov/disease/Hepatitis/Training/2012SymposiumPresentations.htm

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Summary of Selected Reportable Conditions

North Dakota, January – March, 2011-2012

Reportable Condition	January-March 2012*	January-March 2011*
Campylobacteriosis	13	16
Chickenpox	7	15
Chlamydia	704	581
Cryptosporidiosis	7	8
<i>E. coli</i> , shiga toxin positive (non-O157)	3	4
<i>E. coli</i> O157:H7	1	1
Enterococcus, Vancomycin-resistant (VRE)	137	109
Giardiasis	9	9
Gonorrhea	75	60
Haemophilus influenzae (invasive)	5	4
Acute Hepatitis A	0	0
Acute Hepatitis B	0	0
Acute Hepatitis C	0	0
HIV/AIDS ¹	10	6
Influenza	817	1839
Legionellosis	1	1
Listeria	0	0
Lyme Disease	0	0
Malaria	0	0
Meningococcal disease ²	0	1
Mumps	0	3
Pertussis	30	19
Q fever	0	0
Rabies (animal)	7	4
Rocky Mountain spotted fever	0	2
Salmonellosis	15	10
Shigellosis	1	0
<i>Staphylococcus aureus</i> , Methicillin-resistant (MRSA)	31	27
Streptococcal pneumoniae ³ , (invasive, children < 5 years of age)	0	0
Syphilis, Primary and Secondary	1	0
Trichinosis	0	0
Tuberculosis	4	2
Tularemia	0	2
Typhoid fever	0	0
West Nile Virus Infection	0	4

*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.