

In this Issue:

- STD 2006 Update
- HIV Biannual Update
- Hepatitis B and C Virus
- Reportable Conditions Summary

Sexually Transmitted Disease (STD) 2006 Update

Chlamydia

In 2006, 1,830 cases of chlamydia were reported to the North Dakota Department of Health (NDDoH); a ten percent increase from the 1,670 cases reported in 2005. **(Figure 1)** One thousand two hundred thirty-nine (68%) of the cases were reported among females. As in 2005, people ages 20 to 24 had the most reported cases with 863 (47%), followed by 15- to 19-year-olds with 516 (28%) and 25- to 29-year-olds with 308 (17%). **(Figure 2)**

Figure 1. Reported Chlamydia Cases by Year, North Dakota, 1997-2006

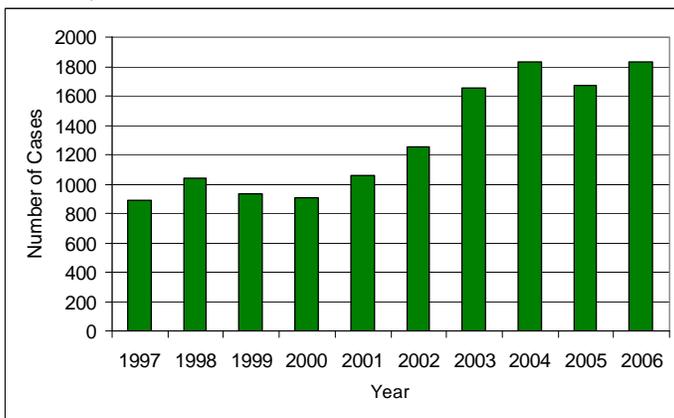
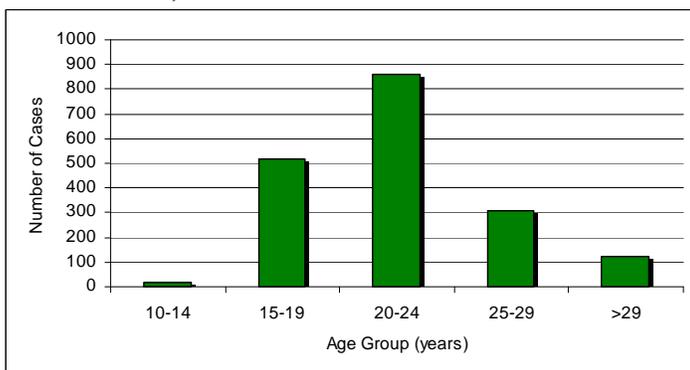
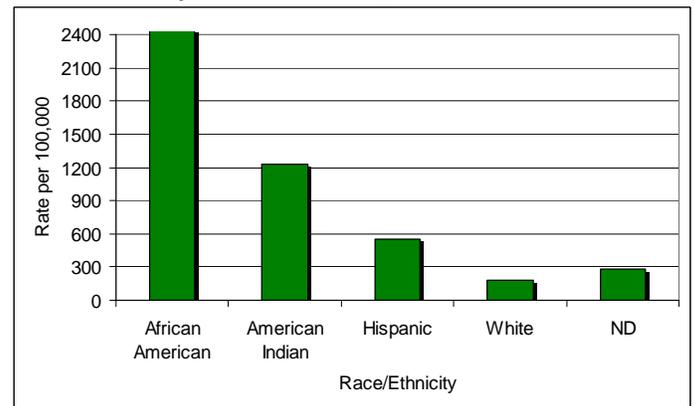


Figure 2. Reported Chlamydia Cases by Age Group, North Dakota, 2006



More cases were reported among whites than any other race. One thousand one hundred two (60%) cases were reported among whites, followed by American Indians with 386 (21%), African Americans with 100 (5%) and Hispanics with 43 (2%). However, minority populations continue to be disproportionately affected by STDs in North Dakota. The chlamydia rate for African Americans for 2006 was 2,554 per 100,000. **(Figure 3)** Among American Indians, North Dakota's largest minority population, the rate was 1,232 per 100,000. In comparison, the chlamydia rate for whites in 2006 was 186 per 100,000. The rate for all of North Dakota in 2006 was 285 per 100,000, compared to 260 per 100,000 in 2005.

Figure 3. Reported Chlamydia Rates by Race/Ethnicity, North Dakota, 2006



One thousand six hundred eighty-nine (92%) of the reported cases were reported from 14 counties. The four counties with the highest chlamydia rates are counties with American Indian reservations. Sioux, Benson, Mountrail and Rolette counties reported incidence rates of 1,236, 739, 689 and 622 per 100,000 population respectively. These rates are significantly higher than the rate of 285 per 100,000 for all of North Dakota. Overall, 10 counties (Sioux, Benson, Mountrail, Rolette, Ward, Hettinger, Grand Forks, Williams, Burleigh and Cass) reported rates higher than the North Dakota rate.

In 2006, 15,953 chlamydia tests submitted from clinics participating in the Region VIII Infertility Prevention Project in North Dakota were analyzed at the NDDoH Division of Laboratory Services. Of these, 1,143 (7.2%) were positive.

Nine family planning clinics submitted 9,027 specimens of which 606 (6.7%) were positive. Of the family planning specimens, 7,957 were from females of which 436 (5.5%) were positive. One thousand sixty-two male specimens were submitted of which 170 (16%) were positive.

Other clinics participating in the Region VIII chlamydia project submitted 6,926 specimens for chlamydia testing; 537 (7.8%) were positive. Of those, 4,969 were from females and 318 (6.4%) were positive.

In 2006, a total of 20,893 chlamydia tests were performed at the Division of Laboratory Services, with 1,404 positive results for a positivity rate (percentage of positive test results) of 6.7 percent. In comparison, 21,081 chlamydia tests were performed in 2005, of which 1,402 were reported positive for a positivity rate of 6.7 percent. Overall, when comparing 2006 test data with 2005 data, the number of positive tests and the positivity rate have remained constant.

Gonorrhea

In 2006, 154 cases of gonorrhea were reported to the NDDoH, a 20 percent increase from the 128 cases reported during 2005. (Figure 4) Eighty-seven (56%) of the cases occurred among females, a 15 percent increase compared to the 76 cases for the previous year. Fifty-nine (38%) cases occurred among 20- to 24-year-olds, an 18 percent increase compared to the 50 cases reported in this age group in 2005. Forty (26%) cases occurred among 25- to 29-year-olds. (Figure 5)

Seventy-five cases were reported among whites, 38 cases among African Americans and 26 cases among American Indians. However, the rates continue to reflect disparity among North Dakota racial and ethnic groups. The gonorrhea rate for African Americans in 2006 was 970 per 100,000, a 65 percent increase compared to 2005. (Figure 6) Among American Indians, the rate was 83 per 100,000. In contrast, the rate among whites in 2006 was 13 per 100,000, and the rate for all of North Dakota was 14 per 100,000.

In 2006, gonorrhea cases were reported from 25 counties. One hundred eighteen (77%) of the cases were reported from four counties: Burleigh, Cass, Ward and Grand Forks. Steele County reported the highest gonorrhea rate, followed by Cass with rates of 89 and 55 per 100,000 population respectively. These rates are significantly higher than the rate of 24 per 100,000 for all of North Dakota. Overall, 12 counties (Steele, Cass, Golden Valley, Sioux, Burke, Hettinger, Towner, McHenry, Ward, Grand

Forks, Mountrail and Benson) reported rates higher than the North Dakota rate.

Figure 4. Reported Gonorrhea Cases by Year, North Dakota, 1997-2006

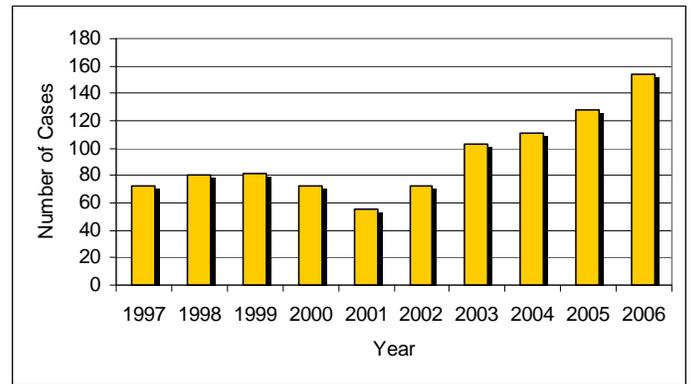


Figure 5. Reported Gonorrhea Cases by Age Group, North Dakota, 2006

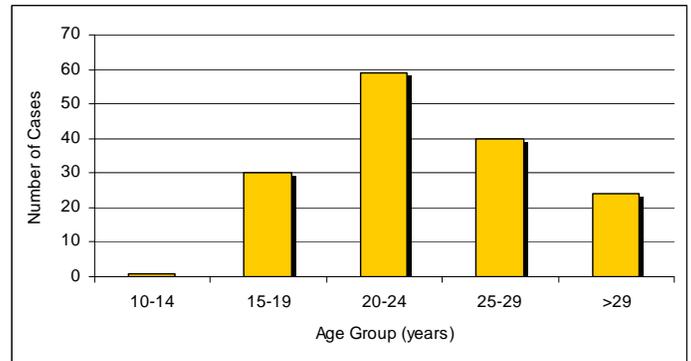
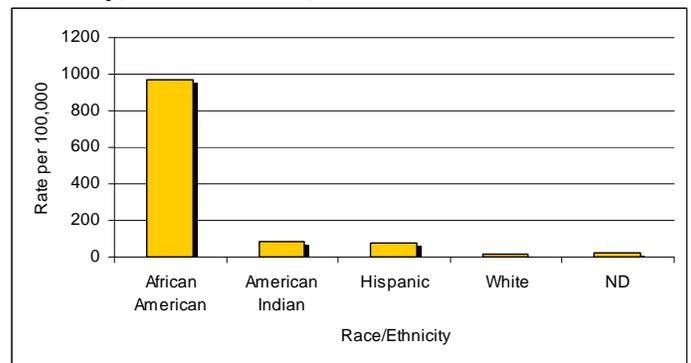


Figure 6. Reported Gonorrhea Rates by Race Ethnicity, North Dakota, 2006



Syphilis

In 2006, one case of secondary syphilis was reported to the NDDoH. The case was a male of Hawaiian/other Pacific Islander race who self-identified as a man who has sex with men (MSM). Based on the results of the epidemiologic investigation, the infection was likely acquired while the case was living out-of-state.

For more information about STDs in your region, contact Kim Weis, STD program manager, at 701.328.2385 or kweis@nd.gov.

HIV Biannual Update

Table 1 summarizes newly diagnosed HIV/AIDS cases reported from Jan. 1 through June 30, 2007, and compares the data to the same period in 2006. The table also

provides a summary about residents of North Dakota diagnosed with HIV or AIDS and known to be living as of Dec. 31, 2006.

Table 1. New HIV and AIDS Diagnoses by Gender, Age at Diagnosis, Race/Ethnicity and Exposure Risk											
North Dakota, 2006 – 2007											
	New HIV Diagnoses¹				New AIDS Diagnoses²				Living HIV and AIDS Cases³		
	January – June				January - June						
	2006		2007		2006		2007		No.	(%)*	
	No.	(%)*	No.	(%)*	No.	(%)*	No.	(%)*	No.	(%)*	
Gender											
Male	3	(75)	1	(25)	3	(100)	1	(50)	114	(78)	
Female	1	(25)	3	(75)	0	(--)	1	(50)	33	(22)	
Race/Ethnicity											
White	2	(50)	2	(50)	2	(67)	2	(100)	101	(69)	
American Indian	0	--	0	--	0	--	0	--	13	(9)	
Black	0	--	2	(50)	1	(33)	0	--	26	(18)	
Hispanic	0	--	0	--	0	--	0	--	6	(4)	
Native Hawaiian/Pacific Islander	1	(25)	0	--	0	--	0	--	1	(1)	
Unknown	1	(25)	0	--	0	--	0	--	0	--	
Age at Diagnosis											
<12	0	--	1	(25)	0	--	0	--	3	(2)	
13-19	0	--	0	--	0	--	0	--	4	(3)	
20-29	2	(50)	1	(25)	0	--	0	--	40	(27)	
30-39	0	--	1	(25)	1	(33)	1	(50)	54	(37)	
40-49	2	(50)	0	--	0	--	0	--	32	(22)	
50-59	0	--	0	--	2	(67)	0	--	12	(8)	
>60	0	--	1	(25)	0	--	1	(50)	2	(1)	
Risk											
Male-to-Male Sexual Contact (MMS)	1	(25)	0	--	1	(33)	0	--	69	(47)	
Injecting drug use (IDU)	0	--	1	(25)	0	--	0	--	12	(8)	
MMS/IDU	0	--	0	--	1	(33)	0	--	3	(2)	
Heterosexual contact	0	--	2	(50)	1	(33)	2	(100)	37	(25)	
Heterosexual contact/IDU	1	(25)	0	--	0	--	0	--	0	--	
Receipt of blood or tissue	0	--	0	--	0	--	0	--	3	(2)	
Adult Hemophilia/coagulation disorder	0	--	0	--	0	--	0	--	2	(1)	
Mother w/or risk for HIV infection	0	--	0	--	0	--	0	--	2	(1)	
Pediatric hemophilia/coag. Disorder	0	--	1	(25)	0	--	0	--	1	(1)	
Risk not specified	2	(50)	0	--	0	--	0	--	18	(12)	
Total	4		4		3		2		147		

* Due to rounding, values may not equal 100 percent.

¹ New HIV diagnoses reflects all residents of North Dakota diagnosed with HIV infection for the first time during the time period, regardless of AIDS status. Also, some may be counted as AIDS cases if they received an AIDS diagnosis during the same period.

² New AIDS diagnoses reflect all residents of North Dakota who first met the criteria for AIDS during the time period, regardless of when their HIV infection was reported to the state.

³ Living HIV and AIDS cases reflect people diagnosed with HIV or AIDS as a resident of North Dakota and were known to be living on December 31, 2006. All deaths may not have been reported.

Cumulative HIV/AIDS Reported Cases

Cumulative reported cases include newly diagnosed cases of HIV infection and AIDS in North Dakota residents, and cases previously diagnosed in other states who resided in North Dakota during the reporting period.

As of June 30, 2007, 399 cumulative HIV/AIDS cases have been reported to the North Dakota Department of Health (NDDoH) since HIV/AIDS surveillance began in 1984. Of these, 263 are known to still be living.

Most frequently reported risk factors are unprotected male-to-male sexual contact (52%), unprotected heterosexual contact (17%) and injecting drug use (11%).

Of the 399 reported cases:

- 85 percent were male; 15 percent female.
- 74 percent were between the ages of 20 and 39 at time of diagnosis.
- 76 percent (303) were white; 11 percent (42) were American Indian; 11 percent (42) were black; two percent (9) were Hispanic – any race; and less than one percent were Asian/Pacific Islander.

All HIV/AIDS data are based on the best information available, but are subject to change as more complete information is received. Please note that a slight change in the number of reported HIV cases will result in significant changes in rates because of the relatively low numbers.

Reporting HIV/AIDS Diagnoses

North Dakota health-care and service providers are required to report to the NDDoH anyone with HIV for whom they are providing care or services.

The following indicators of HIV infection are mandated as reportable to the NDDoH: a confirmed positive HIV antibody screen, detectable and non-detectable viral load test results and any CD4 T-lymphocyte test result.

Accurately counting newly diagnosed HIV and AIDS cases impacts federal resources allocated to North Dakota for HIV/AIDS prevention, care and supportive services and surveillance activities.

NDDoH HIV/AIDS/TB Program Contact Information

Krissie Mayer
HIV/AIDS/TB Program Manager
Office: 701.328.4555
E-mail: kmayer@nd.gov

Greg Welch
TB Coordinator/HIV Prevention Epidemiologist
Office: 701.328.2377
E-mail: gewelch@nd.gov

Denise Larson
HIV Prevention Coordinator/TB Consultant
Office: 701.328.1059
E-mail: denlarson@nd.gov

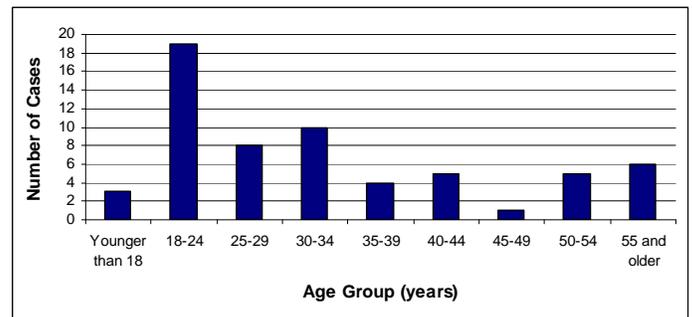
Hepatitis B and C Virus

Hepatitis B Virus (HBV)

In 2006, 60 cases of chronic HBV infection and one case of acute infection were reported to the NDDoH. Morbidity is based on reported positive lab results meeting the Centers for Disease Control and Prevention (CDC) case definition of “hepatitis B virus infection, chronic.” Numbers include both confirmed and probable cases. Of the 61 HBV-positive people reported to the NDDoH, 59 percent were male. Thirty-one percent of reported cases occurred among people ages 18 to 24 years, and the median age was 31 years (range: 23 months to 74 years). (Figure 7) Median age differed between genders, with females having a median age of 31 years and males having a median age of 24 years. Race information was reported as follows: 12% Asian; 21% Black or African American; 16% white; 3% other; and 48% unreported race.

Due to under-reporting of cases and asymptomatic or unrecognized HBV infection, the 61 reported infections, including the one acute infection, are likely an under-representation of actual disease burden in North Dakota.

Figure 7. Reported HBV Cases by Age Group, North Dakota, 2006

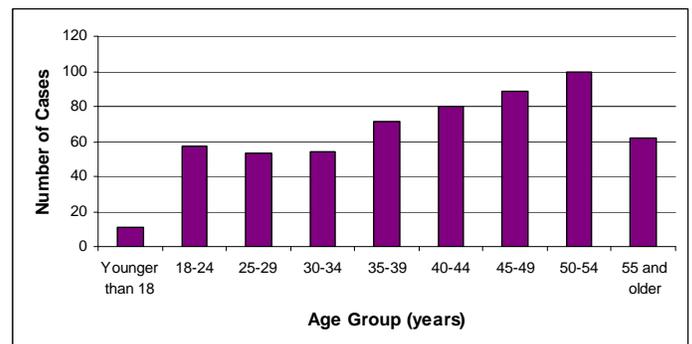


Hepatitis C Virus (HCV)

In 2006, the NDDoH received 578 reports of people newly identified as testing positive for hepatitis C virus (HCV) infection. HCV morbidity is primarily based on positive lab results received from laboratories that meet the CDC case definition of “hepatitis C virus infection, past or present.” Numbers do not distinguish between resolved versus active infections. Of the 578 HCV-positive reports, 60 percent were male. Seventeen percent of reported cases occurred among people ages 50 to 54 years, and the median age was 42 years (range: 3 months to 85 years). (Figure 8) Median age differed somewhat between genders, with females having a median age of 39 years and males having a median age of 44 years. Race information was reported as follows: 17% American Indian or Alaska Native; 0.2% Asian; 2% Black or African American; 41% white; 0.5% other; and 39% unreported race.

Due to under-reporting of cases and asymptomatic or unrecognized HCV infection, the 578 reported cases are likely an under-representation of actual disease burden in North Dakota.

Figure 8. Reported HCV by Age Group, North Dakota, 2006



Contributing Authors:

Kim Weis, STD and hepatitis program manager
Krissie Mayer, HIV/AIDS/TB program manager

Summary of Selected Reportable Conditions

North Dakota, 2006-2007

Reportable Condition	July-Sept 2007*	January-Sept 2007*		July-Sept 2006	January-Sept 2006
Campylobacteriosis	37	80		25	81
Chlamydia	422	1,277		465	1,353
Cryptosporidiosis	62	71		8	19
<i>E. coli</i> , shiga toxin positive (non-O157)	9	17		5	8
<i>E. coli</i> O157:H7	5	10		5	9
Enterococcus, Vancomycin-resistant (VRE)	54	188		58	166
Giardiasis	15	32		12	27
Gonorrhea	32	92		42	100
Haemophilus influenzae (invasive)	1	3		4	6
Hantavirus	0	0		0	1
Acute Hepatitis A	1	1		2	3
Acute Hepatitis B	0	0		1	1
Acute Hepatitis C	0	0		0	0
HIV/AIDS ¹	5	17		8	25
Legionellosis	1	3		0	0
Listeria	0	0		0	1
Lyme Disease	2	3		3	6
Malaria	1	2		0	1
Meningitis, bacterial ² (non meningococcal)	0	1		1	1
Meningococcal disease ³	0	2		1	4
Mumps	0	3		2	14
Pertussis	1	12		11	35
Q fever	0	0		0	0
Rabies (animal)	7	21		6	23
Salmonellosis	48	65		22	41
Shigellosis	1	15		164	172
Staphylococcus aureus, Methicillin-resisitant (MRSA)	14	203		566	1,452
Streptococcal disease, Group A ⁴ (invasive)	6	19		2	3
Streptococcal disease, Group B ⁴ (infant < 3 months of age)	1	4		1	3
Streptococcal disease, Group B ⁴ (invasive ⁵)	42	62		6	25
Streptococcal disease, other ⁴ (invasive)	7	14		7	13
Streptococcal pneumoniae ⁴ , (invasive, children < 5 years of age)	0	1		0	3
Streptococcal pneumoniae ⁴ (invasive ⁶)	16	63		11	48
Streptococcus pneumoniae ⁴ , drug-resistant	0	0		0	0
Tuberculosis	1	3		0	5
Tularemia	0	0		0	2
West Nile Virus Infection	334	352		136	137

*Provisional data

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

² Meningitis caused by *Staphylococcus aureus* and *Streptococcus pneumoniae*.

³ Includes confirmed, probable and suspect meningococcal meningitis cases.

⁴ Includes invasive infections caused by streptococcal disease not including those classified as meningitis.

⁵ Includes invasive infections of streptococcal, Group B, disease in persons \geq 3 months of age.

⁶ Includes invasive infections caused by *Streptococcus pneumoniae* in persons \geq 5 years of age.