

July-August-September 2010

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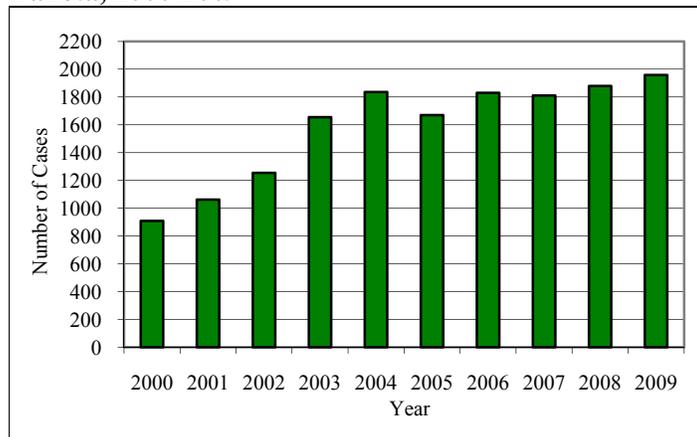
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Sexually Transmitted Disease (STD) 2009 Update

Chlamydia

In 2009, 1,958 cases of chlamydia were reported to the North Dakota Department of Health (NDDoH), a 4.2 percent increase from the 1,879 cases reported in 2008. **(Figure 1)** One thousand two hundred ninety-eight (66%) of the cases reported were females. As in 2008, people ages 20 to 24 had the most reported cases with 897 (46%), followed by 15- to 19-year-olds with 515 (26%) and 25- to 29-year-olds with 339 (17%). **(Figure 2)**

Figure 1. Reported Chlamydia Cases by Year, North Dakota, 2000-2009



More cases were reported among whites than any other race. Seven hundred thirty-five (38%) cases were reported among whites, followed by American Indians with 426 (22%), African Americans with 82 (4%) and Hispanics with 32 (2%). However, minority populations continue to be disproportionately affected by STDs in North Dakota. The chlamydia rate for African Americans for 2009 was 2,093.4 per 100,000. **(Figure 3)** Among American Indians, North Dakota's largest minority population, the rate was 1,359.7 per 100,000. In contrast, the rate among whites in 2009 was 123.9 per 100,000. The rate for all of North Dakota in 2009 was 304.9 per 100,000, compared to 292.6 per 100,000 in 2008.

Figure 2. Reported Chlamydia Cases by Age Group, North Dakota, 2009

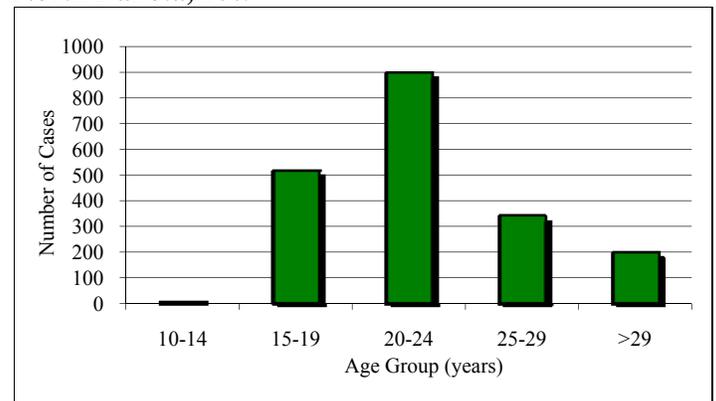
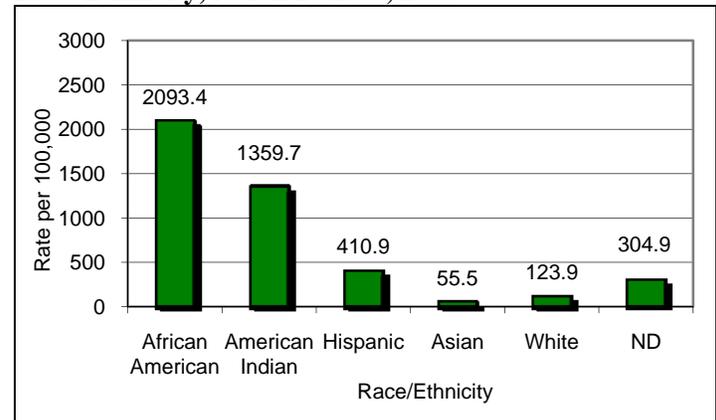


Figure 3. Reported Chlamydia Rates by Race/Ethnicity, North Dakota, 2009



Counties with the highest chlamydia rates in North Dakota are those where American Indian reservations are located; Sioux, Mountrail, Benson and Rolette counties reported the highest incidence rates of 1,113, 1071, 804 and 622 per 100,000 population respectively. These rates are higher than the rate of 304.9 per 100,000 for all of North Dakota.

Infertility Prevention and Chlamydia Screening

The Centers for Disease Control and Prevention (CDC) supports a national Infertility Prevention Program (IPP) that funds chlamydia screening and treatment services for low-income, sexually active women attending family planning, STD and other women’s health-care clinics. The primary mission of IPP is to assess and reduce the prevalence of chlamydia and associated complications in family planning and STD clinic populations and other community-based provider populations through outreach, education, screening, treatment and follow-up. North Dakota belongs to the Region VIII IPP, along with South Dakota, Montana, Wyoming, Colorado and Utah. Nine family planning clinics in North Dakota submit data to the Region VIII IPP.

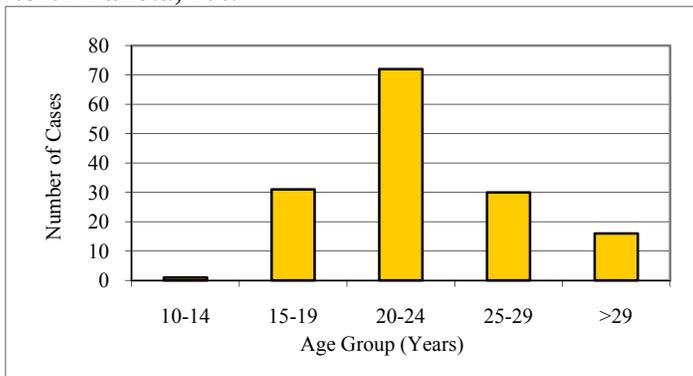
The nine family planning clinics submitted 8,604 specimens in 2009, and 589 (6.8%) were positive. Of the family planning specimens, 7,476 were from females, and 395 (5.3%) were positive. One thousand one hundred eight male specimens were submitted, and 191 (17%) were positive.

In 2009, a total of 20,576 chlamydia tests were performed at the NDDoH’s Division of Laboratory Services, with 1,398 positive results for a positivity rate (percentage of positive test results) of 6.8 percent. In comparison, 20,702 chlamydia tests were performed in 2008, of which 1,386 were reported positive for a positivity rate of 6.7 percent.

Gonorrhea

In 2009, 151 cases of gonorrhea were reported to the NDDoH, a 6.3 percent increase from the 142 cases reported during 2008. (Figure 4) Sixty-two (41%) of the cases occurred among females, a 33 percent decrease compared to 92 cases for the previous year. The total number of females tested in 2009 remained consistent compared to the number tested in 2008. Several factors may attribute to the increased number of females with gonorrhea identified in 2008, including a cluster of gonorrhea cases investigated in Burleigh County. The age group 20- to 24-year-olds had the most reported cases with seventy-two (48%), followed by 15- to 19-year-olds with thirty-one (21%) cases. (Figure 5)

Figure 5. Reported Gonorrhea Cases by Age Group, North Dakota, 2009



The majority of gonorrhea cases are reported among whites (56 cases), followed by American Indians (37 cases) and African Americans (18 cases). Gonorrhea rates continue to reflect disparity among North Dakota racial and ethnic groups. The gonorrhea rate for African Americans in 2009 was 459.5 per 100,000, and 118.1 per 100,000 for American Indians. In contrast, the rate among whites in 2009 was 9.4 per 100,000, and the rate for all of North Dakota was 23.5 per 100,000. (Figure 6)

In 2009, gonorrhea cases were reported from 17 counties. Benson County reported the highest gonorrhea rate, followed by Ramsey, Sioux and Rolette counties with rates of 144, 75, 74 and 66 per 100,000 populations, respectively. These rates are higher than the rate of 23.5 per 100,000 for all of North Dakota. Benson, Ramsey and Rolette counties noted a 3- to 4-fold increase in gonorrhea in 2009 compared to 2008. Age groups primarily affected are 15-to 24-year-olds. Health-care providers in this region have been notified of the increase of gonorrhea cases. Contact tracing and partner management in this region has been challenging. Enhanced surveillance and partner services efforts are underway.

Figure 4. Reported Gonorrhea Cases by Year, North Dakota, 2000-2009

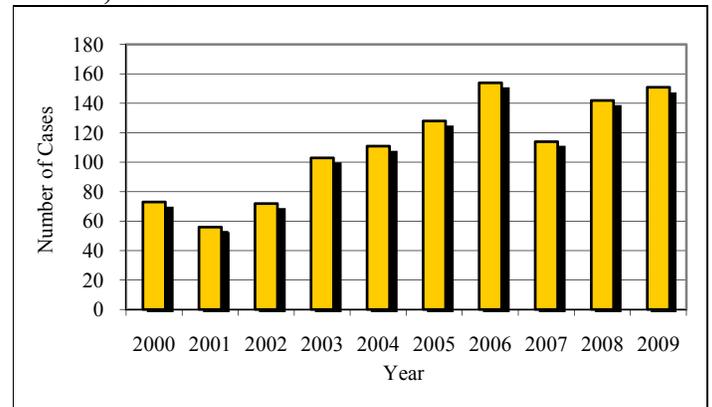
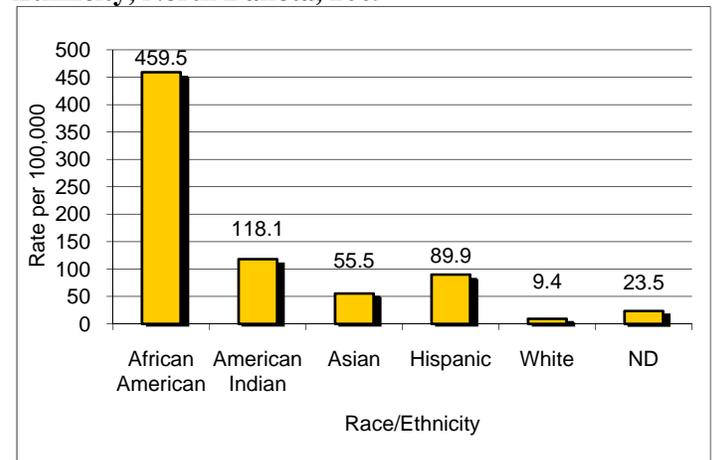


Figure 6. Reported Gonorrhea Rates by Race Ethnicity, North Dakota, 2009



Syphilis

In 2009, four cases of primary or secondary (P/S) syphilis were reported, a rate of 0.6 per 100,000 population. Between 2005 and 2009, seven cases of P/S syphilis were reported to the NDDoH; six were white and one was Asian. Six cases were male and one female. Two cases were among ages 15-to-19 year-olds, two among 20-to-29 year-olds, two among 30-to-34 year-olds and one case was older than 45. Of the six men reported with P/S syphilis between 2005 and 2009, four were men who have sex with men, one was heterosexual, and the sexual orientation information was not known about one. One heterosexual female was reported with P/S syphilis between 2005 and 2009. Zero cases of early latent syphilis (patients who acquired syphilis within the preceding year) were reported in 2009. Between 2005 and 2009, two cases of early latent syphilis were reported to the NDDoH.

Coming soon! Expedited Partner Therapy (EPT) guidance, EPT tool kit and a new website is under development. EPT – defined as treatment of partners without an intervening personal assessment by a health-care provider – is an accepted method of treatment of chlamydial and gonorrhea infections (ND Administrative Code, Chapter 61-04-04-01). Notification of EPT guidance and website will be sent to health-care providers statewide.

HIV Biannual Update

Table 1 summarizes newly diagnosed HIV/AIDS cases reported from Jan. 1 through June 30, 2010, and compares the data to the same period in 2009. The table also provides a summary about residents of North Dakota diagnosed with HIV or AIDS and known to be living as of June 30, 2010.

Table 1. New HIV/AIDS Diagnoses and Total HIV/AIDS Cases Living in North Dakota

	New HIV/AIDS cases ¹				Total HIV/AIDS Cases Living in ND ²	
	Jan - June 2010		Jan - June 2009		Number	Percent*
	Number	Percent*	Number	Percent*		
Diagnosis						
AIDS	1	14%	4	50%	108	49%
HIV	6	86%	4	50%	113	51%
Race/Ethnicity						
American Indian	0	0%	1	13%	26	12%
Black	2	29%	3	38%	41	19%
Hispanic (all races)	1	14%	0	0%	8	4%
Asian/Pacific Islander	0	0%	0	0%	1	0%
White	5	71%	4	50%	153	69%
Gender						
Male	5	71%	7	88%	171	77%
Female	2	29%	1	13%	50	23%
Risk						
Heterosexual contact	4	57%	3	38%	67	30%
Injecting drug use (IDU)	0	0%	1	13%	10	5%
Male-to-male sexual contact (MSM)	3	43%	2	25%	103	47%
MSM/IDU	0	0%	1	13%	9	4%
Perinatal transmission	0	0%	0	0%	4	2%
Adult Hemophilia/coagulation disorder	0	0%	0	0%	1	0%
Receipt of blood or tissue	0	0%	0	0%	1	0%
Risk not specified	0	0%	1	13%	14	6%
Age Group						
≤15	0	0%	0	0%	9	4%
15-24	2	29%	1	13%	31	14%
25-34	2	29%	1	13%	91	41%
35-44	3	43%	2	25%	61	28%
45-54	0	0%	3	38%	22	10%
55-64	0	0%	1	13%	7	3%
65+	0	0%	0	0%	0	0%
Total		7		8		221

*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 June 30, 2010.

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, 2010, 494 cumulative HIV/AIDS cases have been reported to the North Dakota Department of Health (NDDoH) since HIV/AIDS surveillance began in 1984. Of these, 221 are known still to be living in North Dakota.

Most frequently reported risk factors are unprotected male-to-male sexual contact (50%), unprotected heterosexual contact (22%) and injecting drug use (12%).

Of the 494 reported cases:

- 83 percent are male; 17 percent, female.
- 64 percent were between the ages of 25 and 44 at time of diagnosis.
- 74 percent (367) are white; 13 percent (62) are American Indian; 12 percent (60) are black; 3 percent (15) are Hispanic – any race; and less than 1 percent are 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

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Viral Hepatitis Program Update

Activities of the viral hepatitis program include testing at-risk individuals for hepatitis C (HCV), vaccinating at-risk individuals for hepatitis A (HAV)/hepatitis B (HBV), providing educational materials for the general public and for health-care providers, organizing and hosting an HIV/hepatitis conference for health-care providers, developing and implementing a statewide media campaign to increase awareness about viral hepatitis; and contracting with local public health units (LPHUs) to provide the above-mentioned viral hepatitis services.

Currently the NDDoH has contracted with 11 HIV counseling, testing and referral (CTR) sites to implement HCV testing and HBV/HAV vaccination primarily using state funds. CTR sites offering HCV testing and HBV/HAV vaccination are included in Box 1. In addition, one drug treatment center in Fargo participates in the program, offering HBV/HAV vaccine to individuals at risk for HCV.

Box 1. Hepatitis C Testing Sites, North Dakota

Bismarck/Burleigh Public Health
Central Valley Health Unit
Custer Health
Fargo Cass Public Health
First District Health Unit
Grand Forks Public Health Dept.
Lake Region District Health
Minne Tohe Health Center
Richland County Health Dept.
Southwestern District Health Unit
Upper Missouri District Health

Between Nov. 1, 2009, and May 30, 2010, 105 individuals were screened at nine CTR sites, and 17 (16%) tested positive, compared to 102 individuals screened at nine CTR sites and (9%) testing positive during the same time period last year. Between Nov. 1, 2009, and May 30, 2010, 640 inmates were screened at the North Dakota Department of Corrections and Rehabilitation (NDDOCR), including the state penitentiary and three subsidiary correctional facilities, and 105 (16%) tested positive, compared to the 594 inmates screened and 94 (16%) testing positive during the same time period last year.

CTR sites have been receiving and administering HAV/HBV vaccine since February 2008. Between Nov. 1, 2009, and May 30, 2010, a total of 24 doses were administered at the CTRs, compared to 21 doses administered during the same time period last year. From Nov. 1, 2009, to May 30, 2010, 546 doses were administered at the NDDOCR, compared to 249 doses administered during the same time last year.

From Nov. 1, 2009, through May 30, 2010, 20 doses of HAV/HBV vaccine were administered at a drug treatment center, compared to 26 doses administered during the same time period last year.

Hepatitis A Virus (HAV)

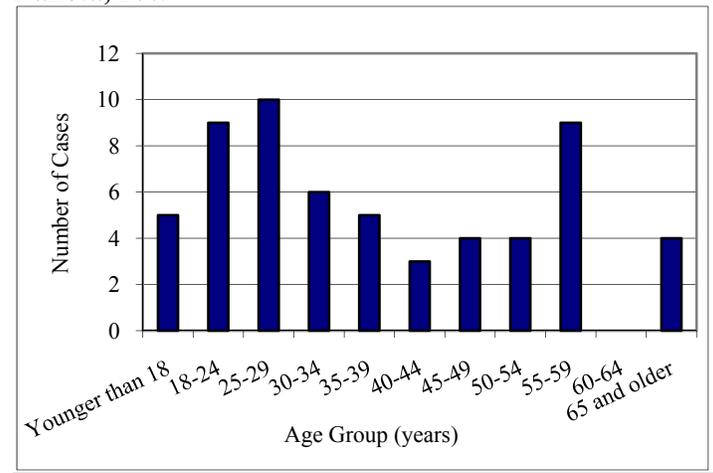
Historically, North Dakota has had relatively low rates of HAV infection punctuated by local or regional epidemics. From 2005 to 2009, 12 cases of acute HAV infection were reported to the NDDoH.

Hepatitis B Virus (HBV)

In 2009, 59 cases of chronic HBV infection and zero cases of acute infection were reported to the NDDoH. Morbidity is based on reported positive laboratory 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 59 HBV-positive people reported to the NDDoH, 59 percent were male. Fifty-one percent of reported cases occurred among people between the ages of 18 and 39, and the median age was 34 (range: 7 to 69 years). (Figure 7) Race information was reported for only 32 percent of cases. Among those reporting race, 26 percent were black, 26 percent were white and 26 percent were Asian.

Due to under reporting, asymptomatic or unrecognized HBV infection, the 59 reported infections are likely an under representation of actual disease burden in North Dakota.

Figure 7. Reported HBV Cases by Age Group, North Dakota, 2009



Perinatal Hepatitis B

Perinatal hepatitis B surveillance and reporting are vital to the health of North Dakota infants. Screening all pregnant women for the presence of hepatitis B surface antigen (HBsAg) is a crucial step in controlling and preventing the spread of hepatitis B from mother to infant. However, documented HBsAg-positive mothers often are not screened, especially during later pregnancies, and are therefore not reported to the NDDoH. As a result, many at-risk infants may be missed. Prior to birth, the NDDoH ensures that the delivery hospital has both vaccine and hepatitis B immune globulin (HBIG) on hand, as both should be administered within 12 hours of birth. Infants born to HBsAg-positive mothers are provided both vaccine and HBIG at no charge. In 2008, the North Dakota Department of Health added pregnancy in women with HBV infection to the mandatory reportable conditions list in order to ensure that all HBV-positive pregnant women are reported to the NDDoH regardless if they were tested during current pregnancy.

Follow-up of HBsAg-positive mothers, infants and other susceptible sexual or household contacts is done to ensure that the infant and contacts receive three doses of the vaccine, that the vaccine is administered appropriately and that the infant receives follow-up testing for hepatitis B antibody levels. Susceptible contacts are screened and offered vaccine at no charge. Between Jan.1, 2010, and Sept. 30, 2010, seven births to HBsAg-positive pregnant women were reported to the NDDoH; the same number of births were reported during the same time frame last year.

Hepatitis C Virus (HCV)

In 2009, the NDDoH received 467 reports of people newly identified as testing positive for hepatitis C virus (HCV) infection. Two of these reports were individuals reported to have acute hepatitis C infection. HCV morbidity primarily is 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.



What's New!

Rapid HCV Testing

The U.S. Food and Drug Administration (FDA) announced approval of the **first rapid test** for antibodies to the **hepatitis C virus** for individuals 15 and older.

- OraQuick HCV rapid test made by OraSure
- Used with venous blood specimens in a lab setting
- A clinical laboratory improvement amendment (CLIA) wavier needs to be issued to perform the test outside a laboratory
- The earliest a test will be available on the point-of-care market is early 2011.

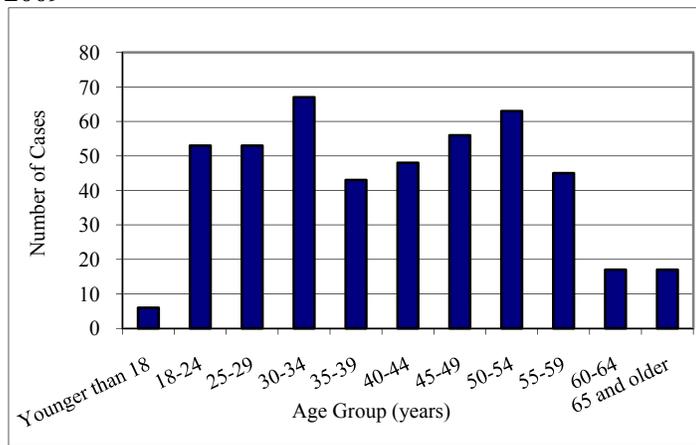
The 2005 [Viral Hepatitis Guide](#) is being updated and will include the following topics:

- [Viral Hepatitis Fact Sheets](#)
- [HBsAg-Positive Mothers Information](#)
- [Viral Hepatitis Markers and Their Significance](#)
- [Patient Evaluation for Viral Hepatitis](#)
- [Viral Hepatitis Laboratory Test Interpretation](#)
- [Postexposure Guidelines for HBV and HCV](#)
- [Additional Viral Hepatitis Resources](#)

Printed copies of the guide will be distributed to North Dakota providers.

Of the 467 HCV-positive reports, 59 percent were male. Forty-five percent of reported cases occurred among people ages 35 to 54, and the median age was 41 (range: 4 years to 83 years). (Figure 8) Race data was available for 34 percent of cases. Among those reporting race, 57 percent were white, 39 percent were American Indian, 3 percent reported other race and 1 percent were Asian.

Figure 8. Reported HCV by Age Group, North Dakota, 2009

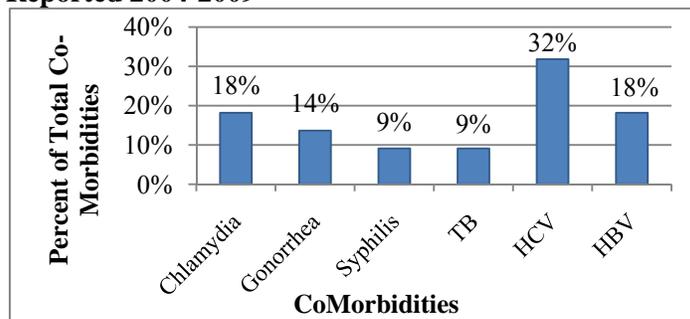


Due to under reporting of cases and asymptomatic or unrecognized HCV infection, the 467 reported cases are likely an under representation of actual disease burden in North Dakota.

Hepatitis B, Hepatitis C, STD and HIV/AIDS CoInfection

An estimated one-quarter of HIV-infected people in the U.S. also are infected with HCV. HIV-infected injection drug users are commonly (50% to 90%) coinfecting with HCV. HCV causes a rapid progression to liver damage in an HIV-infected person. Hepatitis B is also a common coinfection with HIV since transmission is primarily through sexual contact and injection drug use. As with HCV, people who are coinfecting with HIV and HBV have an increased risk for liver-related morbidity and mortality.

Figure 9. Percentage of HIV Cases with Comorbidities Reported 2004-2009



An HIV-infected individual who is also infected with another STD is more likely to transmit HIV through sexual contact than other HIV-infected people. Coinfection of HIV and STDs increases the concentration of HIV in genital secretions, causing increased infectiousness. If exposed to HIV infection through sexual contact, individuals who are infected with STDs are at least two to five times more likely than uninfected individuals to acquire HIV infection.

In North Dakota, HIV/AIDS patients have low rates of coinfection with STDs, hepatitis C and hepatitis B. Table 2 demonstrates the risk factors associated with HIV/AIDS and coinfections in North Dakota. Figure 9 demonstrates that the most common comorbidity in North Dakota is HIV and hepatitis C. Although the percentage of infected HIV/AIDS individuals with coinfections is low, it is very important to know the health implications associated with coinfections.

NDDoH Viral Hepatitis Program

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Table 2—Risk Factors of HIV/AIDS Cases with Comorbidities 2005 - 2009

Risk Factors	Co-Morbidities					
	Chlamydia	Gonorrhea	Syphilis	TB	HCV	HBV
Male-to-male sexual contact (MSM)	0	2	2	0	2	0
Injecting drug use (IDU)	1	0	0	0	0	0
MSM/IDU	0	0	0	0	2	1
Heterosexual contact	3	1	0	2	0	2
Hemophilia/coagulation disorder	0	0	0	0	1	0
Risk not specified	0	0	0	0	2	1

Summary of Selected Reportable Conditions

North Dakota, 2009-2010

Reportable Condition	July-Sept 2010*	January-Sept 2010*	July-Sept 2009	January-Sept 2009
Campylobacteriosis	35	89	31	85
Chickenpox	3	33	14	73
Chlamydia	501	1571	460	1277
Cryptosporidiosis	12	28	9	27
E. coli, shiga toxin positive (non-O157)	4	11	4	9
E. coli O157:H7	5	6	1	4
Enterococcus, Vancomycin-resistant (VRE)	56	234	67	260
Giardiasis	13	25	13	28
Gonorrhea	37	112	37	92
Haemophilus influenzae (invasive)	1	10	0	6
Acute Hepatitis A	0	2	2	2
Acute Hepatitis B	0	0	0	0
Acute Hepatitis C	0	0	1	1
HIV/AIDS ¹	5	19	10	26
Influenza	1	31	409	2,051
Legionellosis	0	4	0	1
Listeria	1	1	1	2
Lyme Disease	16	22	11	13
Malaria	0	0	0	0
Meningococcal disease ²	0	1	1	1
Mumps	0	1	0	2
Pertussis	10	32	8	27
Q fever	0	0	0	0
Rabies (animal)	6	12	2	11
Rocky Mountain spotted fever	0	1	0	0
Salmonellosis	30	49	27	90
Shigellosis	0	0	2	9
Staphylococcus aureus, Methicillin-resisitant (MRSA)	11	46	21	79
Streptococcal pneumoniae ³ , (invasive, children < 5 years of age)	0	2	1	5
Syphilis, Primary and Secondary	0	0	0	0
Trichinosis	0	0	0	0
Tuberculosis	1	8	2	3
Tularemia	0	0	0	0
Typhoid fever	0	0	0	0
West Nile Virus Infection	7	8	1	1

*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.