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HIPAA and Public Health Surveillance

The Health Insurance Portability and Accountability Act (HIPAA) was adopted by the U.S. congress in 1996 to (1) ensure health insurance coverage for workers and their families when they change or lose their jobs and (2) provide standards for facilitating health-care related electronic transactions. The latter of the two titles is covered under the **HIPAA Privacy Rule**. The deadline to comply with the HIPAA Privacy Rule was April 14, 2003.

The HIPAA Privacy Rule protects certain information that covered entities use and disclose. Covered entities include:

- Health plans.
- Health-care clearing houses.
- Health-care providers who chose to transmit certain administrative and financial health information electronically (1).

The information protected under this rule is individually identifiable health information, referred to as **protected health information (PHI)**, and is anything that could identify or provide reasonable basis to believe it can be used to identify an individual (1).

The use and exchange of PHI often is required for public health services to be met efficiently and accurately. Federal, tribal, state **and local health departments are legally authorized to receive PHI that is required by law and is for public health activities. The HIPAA Privacy Rule expressly permits PHI to be shared for specified public health purposes without prior individual authorization** (Box 1) (1).

 **NDDoH HIPAA Coordinator and Officers**
Darleen Bartz, HIPAA Coordinator/Privacy Officer
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Darin Meschke, Security and Transactions Officer

BOX 1. Protected health information (PHI) disclosures by covered entities for public health activities requiring no authorization under the Privacy Rule.

Without individual authorization, a covered entity may disclose PHI to a public health authority that is legally authorized to collect or receive the information for the purposes of preventing or controlling disease, injury or disability including, but not limited to:

- reporting of disease, injury and vital event (e.g., birth or death); and
- conducting public health surveillance, investigation and interventions.

PHI may also be disclosed without individual authorization to:

- report child abuse or neglect to a public health or other government authority legally authorized to receive such reports;
- a person subject to jurisdiction of the Food and Drug Administration (FDA) concerning the quality, safety or effectiveness of an FDA-related product or activity for which that person has responsibility;
- a person who may have been exposed to a communicable disease or may be at risk for contracting or spreading a disease or condition, when legally authorized to notify the person as necessary to conduct a public health intervention or investigation; and
- an individual's employer, under certain circumstances and condition, as needed for the employer to meet the requirement of the Occupational Safety and Health Administration, Mine Safety and Health Administration or a similar state law.

Source: Centers for Disease Control and Prevention
MMWR. 2003; Vol. 52

Examples of public health activities that **do not require previous individual authorization are activities to prevent or control disease, injury or disability, including, but not limited to the reporting of disease, injury, vital events such as birth or death and the conduct of public health surveillance, public health investigations and public health interventions.**

When covered entities disclose PHI that is required by law to public health authorities, they do not need an authorization prior to releasing the necessary PHI nor does the organization need to execute a business association agreement with the public health authority prior to releasing PHI. The public health authority is not a business associate of your organization under the HIPAA Privacy Rule definition of “business associate.”

Federal government resources on HIPAA regulations: Department of Health and Human Services Office for Civil Rights – HIPAA Guidelines <http://www.hhs.gov/ocr/hipaa> and CDC-Privacy Rule Guidelines <http://www.cdc.gov/privacyrule>.

State government resources can be found on the NDDoH homepage <http://www.health.state.nd.us/> (click on HIPAA on the right-hand side).

HEPATITIS

Viral hepatitis was first described as a distinct clinical entity in the 17th and 18th centuries. The NDDoH continues to focus on controlling the spread of viral hepatitis responsible for gastrointestinal illness, chronic hepatitis, hepatocellular carcinomas, cirrhosis and chronic liver disease. Hepatitis A, B and C are the most prominent forms of hepatitis in the United States.

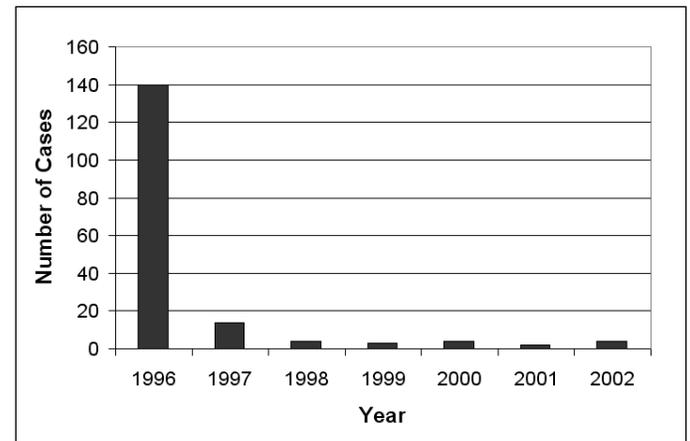
In August 1995, the NDDoH began providing hepatitis A vaccine for children 2 years old who live in areas endemic for hepatitis A. The vaccine is now available to the following children from ages 2 to 18:

- Children in counties where the average annual hepatitis A rate from 1987 through 1997 was at least 10/100,000 people or in counties that have periodic outbreaks of hepatitis A. These include the counties of McKenzie, Mountrail, McLean, Sioux, Rolette, Benson, Ramsey and Eddy.
- American Indian children who live on or off reservations.
- VFC-eligible children traveling to countries that have high or intermediate endemicity of infection.

- Children who receive clotting factor concentrates, especially solvent detergent-treated preparations.
- Children who have chronic liver disease, including those awaiting or having undergone liver transplantation.
- Sexually active homosexual and bisexual male adolescents.

The number of reported cases of hepatitis A in North Dakota decreased from 140 cases in 1996 to four cases in 2002 (Figure 1).

Figure 1. Hepatitis A Cases By Year, 1996-2002



The NDDoH initiated the Perinatal Hepatitis B Vaccination Program in 1992. Hepatitis B vaccine is provided free of charge to all children born in North Dakota and all children through age 18 living in North Dakota. The NDDoH recommends that all neonates receive the first dose of hepatitis B vaccine before hospital discharge. Hepatitis B vaccine is required upon school entry in North Dakota.

Screening all pregnant women for the presence of the hepatitis B surface antigen (HBsAg) plays an important role in controlling the spread of this blood-borne pathogen. HBsAg testing is offered at no charge through the NDDoH to any pregnant woman residing in North Dakota. Infants born to HBsAg-positive mothers are provided both hepatitis B vaccine and the hepatitis B immunoglobulin (HBIG) at no charge. Follow-up testing of the infant for anti-HBs to confirm immunity also is conducted and is important for the evaluation of the program. Unfortunately, despite these efforts, many North Dakota children born to HBsAg-positive mothers are not tested for anti-HBs. This indicates a need for education at both the parent and provider level. Table 1 provides information regarding the number of children born to HBsAg positive mothers each year in North Dakota since the initiation of the program.

Table 1. Number of Infants Born to HBsAg Mothers in North Dakota, 1992-2002

Year	Number of Infants Born	Year	Number of Infants Born
1992	1	1998	5
1993	4	1999	8
1994	11	2000	2
1995	5	2001	1
1996	6	2002	5
1997	5	Total	53

Follow-up of these infants indicate that:

- 25 completed the vaccination series and tested positive for anti-HBs.
- Seven moved out of the state prior to completion of the program.
- 13 have not been tested for anti-HBs.
- Three were lost to follow-up prior to completing the hepatitis B vaccine series.
- Five are still being followed up (two need anti-HBs testing, two need to complete the hepatitis B vaccination series and one is being revaccinated because they tested negative for anti-HBs after completion of HBIG/vaccine series).

Through this program, the NDDoH was able to follow up three additional children who did not produce antibody response after receiving the first series of vaccine. They received three additional doses and are waiting follow-up testing.

The CDC’s Division of Viral Hepatitis, in coalition with several organizations, has formed the National Viral Hepatitis Roundtable. The roundtable activities focus on adult vaccination programs, hepatitis C counseling, testing and medical referral, surveillance, prevention initiatives and research.

MEET THE FIELD EPI’S

How many bouts of diarrhea did you have in a day?
 How many people have you had sex with in the last two months? Do you have painful urination?

Although these may be embarrassing questions for many people, they are routine questions asked by North Dakota field epidemiologists who are on the disease investigation “front lines.” These eight field epidemiologists of the North Dakota Department of Health are located in local public health units around the state. Each epidemiologist is responsible for investigating communicable diseases in their region. The areas of responsibility for the field epidemiologists are provided in Figure 2 on page 9.

Much of their work deals with sexually transmitted disease case management and contact tracing. However, they also follow up on many other issues, such as tuberculosis, enteric pathogens, vaccine-preventable diseases, bioterrorism, blood-borne pathogens, influenza and antibiotic resistance organisms.

The following provides a brief introduction for each of the field epidemiologists.



Name: Delbert J. Streitz

Health Unit: Grand Forks Public Health

Years with the department: 26 years

Education background: BA in cognitive science from Dickinson State College.

Hobbies/family/and other interesting information: “I have a 19-year-old Arabian mare and enjoy hunting with my children (Adam, 19; and Danielle, 16). I also enjoy spending time with friends and my wife, Susan. The little spare time I have is usually spent with nature.”

Interesting cases/investigations: “In 1977, while working on a gonorrhea case, I almost ended in the middle of a drug bust on a home visit. An undercover policeman found me the next day to inform me of the precarious situation.”



Name: Julie Jacobson

Health Unit: Bismarck-Burleigh Public Health

Years with the department: nine years

Education background: BSN registered nurse

Hobbies/family/and other interesting information: Family, biking, boating, running, gardening; family-married 20 years with three children, Kristen, 17; Brenden, 7; and Landon, 1.

Interesting cases/investigations:

“I did an extensive investigation and follow-up on a 6-month-old baby diagnosed with salmonella. The parents sought medical follow-up several times before the baby was hospitalized and salmonella was diagnosed. Upon a visit to the home, I discovered they owned numerous reptiles. The parents were never cautioned about having reptiles in the same household as young children. The mother gave me the reptiles for testing and a matching salmonella subtype was identified in one of the reptiles. The baby developed chronic salmonella carriage for over a year resulting in growth and development delays and a weakened immune system.”

Name: Jill Sletteland



Health Unit: Lake Region District Health Unit, Devils Lake

Years with the department: seven months

Education background: Biology, health with teaching degree, minor in coaching and recreation

Hobbies/family/and other interesting information: "I grew up on a farm near Devils Lake so I'm back in my hometown. I was teaching high school science before I took this job. My hobbies include stained glass work, kayaking, alpine skiing, garden/yard work, spending time with family and friends and working on the farm."

Interesting cases/investigations: "Since I'm relatively new, I really don't have any highlights at this time. I've enjoyed getting to know the rest of the staff and forming the Field Epi Response Team. I can brag about my smallpox tattoo!"

Name: Gerry Haag



Health Unit: Southwestern District Health Unit, Dickinson

Years with the Department: 26 years

Educational Background: BA & BS. Biology major with minors in chemistry and math and a BS in secondary education from Dickinson State University.

Hobbies/family/and other interesting information: "Married to my beautiful wife of 26 ½ years, Petrina, who is a second grade elementary teacher at St. Patrick's School. I have four children: Justin - senior at UND Grand Forks, Jessica - second year in the Dental Hygenist Program at NDSCS in Wahpeton; Lee - junior at Trinity High School; and Kira - fourth grader at St. Pat's. I was the military lottery number "1," serving two years in the U.S. Army National Security Agency stationed in Sinop, Turkey. I enjoy camping, fishing, hunting, archery and ice fishing – basically all North Dakota has to offer."

Interesting cases/investigations: "There are many to choose from, but the one that stands out would be the mass immunization program in the Williston area due to an outbreak of meningitis and the swine flu immunization campaign."

Name: Dana Brekhus



Health Unit: Upper Missouri District Health Unit, soon to be Northwest Public Health, Williston

Years with the Department: seven months

Education background: BS in biology from Dickinson State University

Hobbies/family/and other interesting information: "I held the title of Miss Rodeo N.D. State Fair 2002 and was named first runner-up at Miss Rodeo North Dakota. Hobbies include anything to do with horses or motorcycles. I am single and an only child."

Interesting cases/investigations: "I haven't been in the job long enough to have any real interesting cases, but all of them are in their own way. When you start asking people about their bowel movements, you always learn more than you ever wanted to know!"

Name: Eugenie Lang (Genie)



Health Unit: Central Valley Health Unit, Jamestown

Years with the Department: 13 years

Education background: Registered nurse

Hobbies/family/and other interesting information: "I have one husband, two children, but no pets. I collect nativity sets and love fresh flowers. I have quite a collection of Asiatic lilies in several colors growing in our yard, which are quite beautiful."

Interesting cases/investigations: "The first foodborne outbreak with which I was involved was memorable in that it involved the music camp at the International Peace Gardens with several hundred international participants. I remember several long, long hours worked trying to reach as many people as possible. My first introduction to trapping mosquitoes ranks right up there as a memorable health department task. I found it interesting, and yet the mosquitoes were ferocious and drew a lot of blood themselves. Especially interesting was making gravid traps!"

Name: Doug Johnson



Health Unit: Fargo Cass Public Health

Years with the Department: 21 years

Education background: Physician assistant

Hobbies/family/and other interesting information: Married to Ruth with two sons, Chris and Kelly. Hobbies include golf and travel.

Interesting cases/investigations: "One day I'm doing daycare assessments for immunizations. I stop at a daycare run by a short blond woman who was very cordial. As I walked up to the door of the next daycare on my list, a short blond woman meets me at the door

and says, “Hi Doug. I’ve been waiting for you.” Turns out she’s the identical twin of the first daycare operator, who had phoned her to say I’d be stopping by. Daycare visits are done randomly so what were the chances I’d meet twins on two consecutive visits? It was a real ‘twilight zone’ moment.”



Name: Linda Larson

Health Unit: First District Health Unit, Minot

Years with the Department: six months

Education background: Nursing

Hobbies/family/and other interesting information: “I have a wonderful 16-year-old daughter, a yellow lab and a cat. My daughter and I like many of the same things, so we spend a lot of time together going walleye fishing, riding horses and other outdoor activities.”

Interesting cases/investigations:

“An interesting part of my position is the investigation – the ‘PI’ part. It’s a different perspective of utilizing my nursing degree. I have found that I am learning not only much more about disease processes, but also about people as well.”

FOODBORNE ILLNESS

The upcoming summer months will be a popular time for people to serve a variety of foods at barbeques, campsites, fairs, weddings and other outside activities. The first step in preventing foodborne illness is educating food handlers about the importance of practicing good personal hygiene while preparing food, how to avoid cross contamination, and proper food handling and cooling procedures.

If a foodborne outbreak occurs, health-care providers should be aware of the signs and symptoms typical of the many agents that cause foodborne illness, as they usually will be the first to learn about commonalities of symptoms among patients seeking treatment. If an outbreak is suspected, it is important that providers notify the state or local public health unit as soon as possible so that exposed individuals can be identified rapidly, as well as the source and the cause of the illness. It is also important to collect samples such as stool and/or vomitus to be able to determine the causative agent.

Some common foodborne pathogens, their symptoms and incubation periods are included in Table 2.

Table 2. Selected Foodborne Pathogens		
Illness Agent	Symptoms	Incubation
Nausea and Vomiting, Often With Diarrhea		
<i>Staphylococcus aureus</i>	Vomiting, cramps, nausea	2-4 hrs
<i>Bacillus cereus</i> Type A	Nausea, vomitig, (diarrhea may be present)	2-4 hrs
Calicivirus (Norovirus)	Vomiting, cramps, diarrhea, headache	24-48 hrs
Abdominal Cramps and Diarrhea		
<i>Clostridium perfringens</i>	Diarrhea, cramps, (vomiting and fever uncommon)	10-12 hrs
<i>Bacillus cereus</i> Type B	Diarrhea, cramps, (vomiting less frequent)	8-16 hrs
Enterotoxigenic <i>E.coli</i> (ETEC)	Diarrhea, cramps, nausea (vomiting and fever less common)	6-48 hrs
Abdominal Cramps and Diarrhea, Often With Fever		
<i>Salmonella</i>	Diarrhea (may be bloody), fever, cramps	6-72 hrs
<i>Vibrio parahaemolyticus</i>	Diarrhea (often watery), cramps	12/24/ hrs
<i>Vibrio cholerae</i> non-O1 or non-O139	Diarrhea (watery), vomiting (less frequent)	1-5 days
<i>Yersinia enterocolitica</i>	Diarrhea, abdominal pain (often severe)	4-6 days
Bloody Diarrhea and Abdominal Cramps, Often With Fever		
<i>E.coli</i> O157:H7	Diarrhea (often bloody), severe cramps, sometimes fever	3-4 days
<i>Shigella</i>	Diarrhea (often bloody), fever, cramps	2-4 days
<i>Campylobacter</i>	Diarrhea (often bloody), fever, abdominal pain	2-5 days
Nausea, Vomiting, Diarrhea and Paralysis		
<i>Clostridium botulinum</i>	Commonly diplopia, blurred or double vision, and bulbar weakness; paralysis	12-48 hrs

Source: 2,4

In 2002, the North Dakota Department of Health investigated three outbreaks of gastroenteritis involving more than 450 human cases. The outbreaks occurred in December, a time of year typically associated with holiday feasts prepared for large numbers of people in one sitting.

A confirmed foodborne disease outbreak is defined as two or more people becoming ill with similar symptoms after consuming a common food and the epidemiologic investigation implicates the food as the source of illness (2). Laboratory testing is not required to confirm a foodborne outbreak, but is extremely helpful in the course of the investigation.

Table 3 on page 7 describes foodborne outbreaks investigated by the NDDoH from 1994 to 2002. Improper cooking and possible cross contamination were the contributors most commonly identified.

WEST NILE VIRUS SURVEILLANCE

Surveillance activities coordinated between the NDDoH and local, state, federal and private agencies begins June 1, 2003. The surveillance activities include reporting and testing sick horses and dead birds, trapping and testing mosquitoes, and monitoring symptoms and illnesses of humans.

Health-care providers are asked to assist the NDDoH by reporting and submitting samples of possible arboviral encephalitis cases for testing. The NDDoH will provide antibody testing at **no charge** on suspected human encephalitis cases that meet the testing criteria listed in Box 2.

References:

1. CDC. HIPAA Privacy Rule and Public Health: Guidance from CDC and the U.S. Department of Health and Human Services. Morbidity and Mortality Weekly Report. 2003; vol.52: 1-20.
2. Mandell GL, et. al. Principles and Practice of Infectious Diseases. Churchill Livingstone, NY, 1995. Foodborne Disease 1012-1024.
3. Minnesota Department of Health/Infectious Disease Epidemiology, Prevention and Control Division/Acute Disease Investigation and Control Section/Foodborne, Vectorborne, and Zoonotic Diseases Unit. Minnesota Department of Health 2001 Gastroenteritis Outbreak Summary. 2001; 2.
4. Olsen SJ, et al. Surveillance of Foodborne Disease Outbreaks-United States, 1993-1997. Center for Disease Control Surveillance Summaries, March 2000; 49 (No.SS-1) 54-62.

Editor's Note:

Please note the corrected number of tuberculosis cases: six reported cases in 2001 and six reported cases in 2002.

Did You Know??

In 2002, WNV was identified in North Dakota in:

- 17 humans
- 569 horses
- 65 birds
- 1 mosquito pool

BOX 2. Criteria for Arboviral Encephalitis Testing

The North Dakota Department of Health is conducting surveillance to identify illnesses that may be due to arboviral encephalitis. Free arbovirus testing will be performed at the North Dakota Public Health Laboratory on serum specimens from patients meeting any one of the following criteria:

CRITERIA ONE

Any adult or pediatric patient with presumptive viral encephalitis.

OR

CRITERIA TWO

Any patient age 17 or older with presumptive aseptic meningitis with a negative gram stain and culture.

OR

CRITERIA THREE

Any adult or pediatric patient with presumed Guillain-Barre' Syndrome or acute flaccid paralysis.

The Laboratory Test Request Form (SFN 5826) must accompany ALL samples submitted for arboviral testing.

Due to the volume of samples received, patient samples will be prioritized according to severity of illness; first testing priority will be for hospitalized patients.

Patient name, complete address, date of birth, symptoms, date of onset and hospitalization status must be completed on the laboratory test request form (SFN 5826) or the sample will be placed at the bottom of the queue.

Testing will be conducted Monday and Wednesday of every week.

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Julie Goplin, surveillance epidemiologist

Did You Know??

The largest arboviral meningoencephalitis (ME) epidemic ever documented in the western hemisphere occurred in 2002.

The 2002 WNV ME epidemic that occurred in North America was the largest ever documented anywhere in the world.

Table 3. Number of Confirmed Foodborne Outbreaks Per Year, North Dakota, 1994-2002

Date	County	Facility	Number Ill	Number Exposed	Suspected Food	Suspected Agent	Contributing Factors
05/94	Dickey	Private home	4	4	Turkey	<i>Salmonella hadar</i>	Inadequate cooking
12/94	Ward	Restaurant-catered party	72	200	Unknown	Unknown	None Identified
03/95	Morton	Restaurant	12	Unknown	Unknown	Unknown	Possible cross contamination, improper food temps.
05/95	Burleigh	Restaurant	33	Approx. 400	Ground beef	<i>E.coli</i> O157:H7	Inadequate cooking
01/97	Ward	Restaurant	32	153	Unknown	Probable Norwalk-like virus	Possible cross contamination
02/97	Burleigh	Private home	21	Approx. 40	Cheese/meat tray	Norwalk-like virus	Possible cross contamination, person to person
02/97	Ward	Restaurant	32	50	Roast beef	<i>Clostridium perfringens</i>	Inadequate re-heating, possible cross contamination
09/98	Rolette	School cafeteria	502	1,023	Burritos	Unknown, possible toxin	None identified
12/98	Stutsman	Restaurant	92	250	Roast beef	<i>Clostridium perfringens</i>	Improper re-heating
05/99	Burleigh	Wedding/restaurant	80	137	Unknown/butter	Norwalk-like virus	Ill foodhandler
10/99	Burleigh	Single case	1	1	Home-canned zucchini relish	<i>Clostridium botulinum</i>	Possible improper home canning
02/00	Multi-state:ND, MN, MT	Tour group to the Dominican Republic	54	177	Possible eggs	<i>Salmonella enteritidis</i>	Several meals at the resort implicated epidemiologically
09/00	Rolette	Girls basketball team	12	36	Possible heat-and-serve burritos	Unknown	Possible psychogenic illnesses involved
03/01	Ramsey	School	22	64	Classroom snack "moonballs"	Probable Norwalk-like virus	Unknown
04/01	Burleigh	Hotel restaurant	101	143	Fruit cup	Probable Norwalk-like virus	Ill food handler
12/01	Burleigh	Restaurant/holiday party	8	54	Possible beef tenderloin	Possible <i>Clostridium perfringens</i>	Improperly prepared and re-heated turkey/gravy
04/02	Ward	Restaurant/banquet	119	280	Roast turkey/gravy	<i>Clostridium perfringens</i>	Improper food handling
12/02	Ward	Restaurant/hotel	225	465	Unknown	Norwalk-like virus	Ill food handlers
12/02	Pembina	School	97	326	Unknown	Norwalk-like virus	Unknown
12/02	Mercer	Office holiday party	100	400	Roast turkey	<i>Clostridium perfringens</i>	Improper food handling

Summary of Selected Reportable Conditions

North Dakota, 2002-2003

Reportable Condition	March-April 2003*	Jan-April 2003*		March-April 2002	Jan-April 2002
Campylobacteriosis	10	13		15	18
Chlamydia	303	498		220	414
Cryptosporidiosis	3	3		3	9
E.coli, shiga toxin positive (non-O157)	0	1		0	0
E. coli O157:H7	0	1		0	2
Giardiasis	5	16		4	12
Gonorrhea	17	25		13	22
Haemophilus influenzae (invasive)	0	1		1	1
Hepatitis A	0	0		1	2
Hepatitis B	0	0		2	3
Hepatitis C	0	0		0	0
HIV/AIDS	3	7		3	6
Legionellosis	0	1		0	0
Listeriosis	0	0		0	1
Lyme Disease	0	0		0	0
Malaria	0	0		0	1
Meningitis, bacterial (non meningococcal)	1 [▲]	2 [▲]		1 [▲]	1 [▲]
Meningococcal disease	0	2		2	3
MRSA (invasive)	50	120		25	54
Pertussis	0	2		3	6
Q fever	1	1		0	0
Rabies (animal)	7	19		11	15
Salmonellosis	8	14		8	19
Shigellosis	0	3		7	18
•Streptococcal disease, Group A (invasive)	3	8		2	3
•Streptococcal disease, Group B (infant < 3 months of age)	0	1		0	0
•Streptococcal disease, Group B (invasive [†])	0	7		1	4
•Streptococcal pneumoniae, (invasive, children < 5 years of age)	0	1		1	2
•Streptococcal pneumoniae (invasive [‡])	11	23		9	18
•Streptococcus pneumoniae, drug resistant	0	3		0	1
Tuberculosis	0	0		5	5
Tularemia	0	0		0	0

*Provisional data

[▲]Meningitis caused by *Staphylococcus aureus* and *Streptococcus pneumoniae*.

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

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

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

[§]Includes MRSA isolated from all sites after August 1, 2002.

Figure 2. North Dakota Field Epi Regions

