

April-May-June 2007

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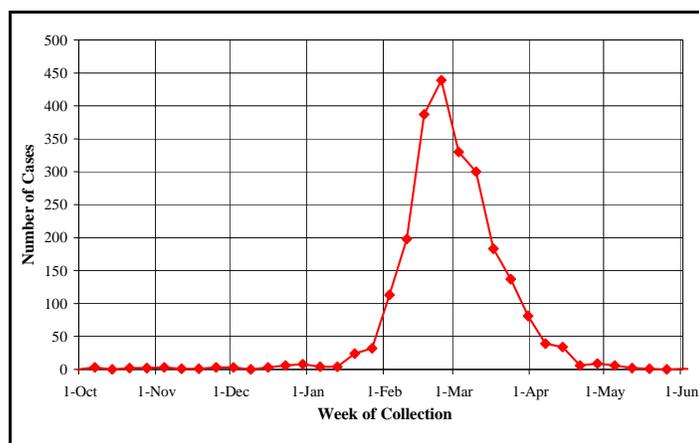
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2006-2007 Influenza Summary

Influenza surveillance activities resumed for the 2006-2007 season in October of 2006. In North Dakota, the influenza season typically runs from October through May. The North Dakota Department of Health (NDDoH) uses laboratory-identified influenza cases to track influenza activity in the state. In addition, the NDDoH has an influenza sentinel surveillance program consisting of 11 sentinel providers, eight emergency rooms, one ask-a-nurse call center, 30 laboratories and 12 schools contributing data which is used to actively monitor influenza illness.

Influenza activity in the state remained sporadic until reports of cases increased in late January 2007 and reached peak activity the week ending February 24, 2007. (**Figure 1**) During the 2006-2007 influenza season, a total of 2,369 influenza cases were identified via viral culture, DFA, IFA or rapid test.

Figure 1. Number of Reported Influenza Cases, North Dakota, 2006-2007 Influenza Season.



The largest number of positive cases was reported in the 6- to 10-year-old age range (500). Those 19 and younger comprised more than 60 percent of the total cases reported during the 2006-2007 influenza season. In addition, a number of schools in the state reported outbreaks and high illness-related absenteeism rates.

Unlike last year's influenza season, type A was the predominant type identified during the 2006-2007 influenza season, with 93 percent of the cases being type A (2,213). The Division of Laboratory Services sub-typed 26 influenza isolates, with 16 identified as type A (H1) and 10 identified as type A (H3). Figure 2 summarizes the 2006-2007 influenza cases by age group and type.

Figure 2. Influenza Cases by Age Group and Type, North Dakota, 2006-2007 Influenza Season.

	TYPE			Total
	A	B	Unspecified	
<1	68	2	2	72
1-5	457	12	17	486
6-10	467	3	30	500
11-19	410	4	26	440
20-24	138	3	8	149
25-34	200	5	13	218
35-44	142	1	2	145
45-54	133	1	7	141
55-64	76	4	1	81
65+	122	1	14	137
Total	2213	36	120	

As part of the National Notifiable Diseases Surveillance System (NNDSS), the NDDoH conducts surveillance for influenza-associated pediatric deaths. During the 2006-2007 influenza season, no influenza-associated deaths among children were identified in the state.

A total of 50 out of the 53 counties in the state reported laboratory-identified influenza infection during the 2006-2007 season. (Table 1)

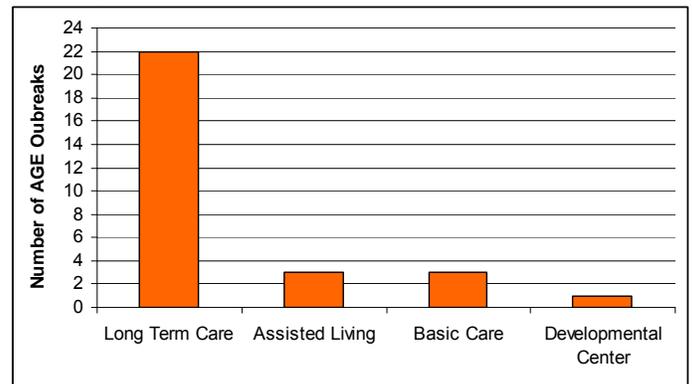
Table 1. Number of Influenza Cases by County, North Dakota, 2006-2007 Influenza Season.

COUNTY	CASES	COUNTY	CASES
Adams	2	McLean	64
Barnes	10	Mercer	76
Benson	16	Morton	206
Billings	0	Mountrail	20
Bottineau	8	Nelson	6
Bowman	3	Oliver	6
Burke	0	Pembina	36
Burleigh	466	Pierce	1
Cass	351	Ramsey	31
Cavalier	5	Ransom	19
Dickey	63	Renville	2
Divide	1	Richland	35
Dunn	9	Rolette	12
Eddy	0	Sargent	10
Emmons	20	Sheridan	2
Foster	4	Sioux	25
Golden Valley	4	Slope	1
Grand Forks	155	Stark	167
Grant	23	Steele	3
Griggs	6	Stutsman	164
Hettinger	2	Towner	1
Kidder	10	Traill	48
La Moure	14	Walsh	19
Logan	11	Ward	138
McHenry	7	Wells	25
McIntosh	6	Williams	53
McKenzie	3		

Acute Viral Gastroenteritis

Between October 2006 and February 2007, 29 acute viral gastroenteritis (AGE) outbreaks were reported to the NDDoH among health-care settings in 20 counties, including Adams, Barnes, Cass, Dunn, Foster, Golden Valley, Grand Forks, Grant, Griggs, Hettinger, McHenry, McLean, Mountrail, Nelson, Pierce, Renville, Stark, Stutsman, Walsh and Ward. The majority of outbreaks occurred in long-term care facilities. (Figure 3)

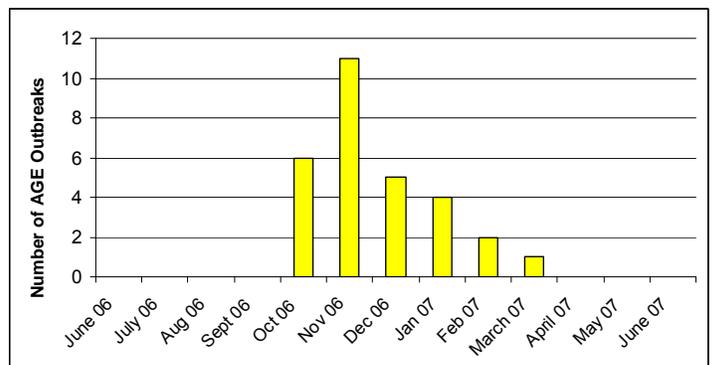
Figure 3. Number of AGE Outbreaks Reported from Health-Care Settings in North Dakota, Oct. 1, 2006, to Feb. 28, 2007.



A viral gastroenteritis outbreak is defined as two or more people associated with a common venue having acute vomiting and/or diarrhea lasting 24 to 48 hours. More than 600 residents and 300 staff were ill at the time the outbreaks were reported. Twenty-two out of 26 total stool specimens collected from 10 facilities reporting outbreaks tested positive for norovirus.

Outbreaks of gastroenteritis in long-term care facilities are not uncommon, occurring most often during the winter and early spring. More than half of the AGE outbreaks in North Dakota were reported in October and November. (Figure 4)

Figure 4. Number of AGE Outbreaks Reported in North Dakota by Month.

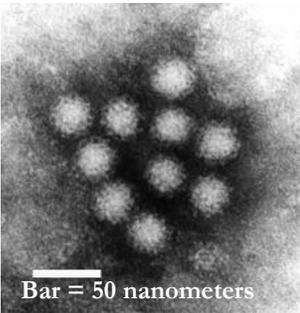


For more information about influenza, avian influenza or pandemic influenza, visit, www.ndhealth.gov/disease or www.ndflu.com.

Prevention and control of AGE outbreaks may be challenging, as the agent is resistant to common disinfectants, offers no long-lasting immunity and is highly contagious. The most common measures for control in North Dakota facilities reporting AGE outbreaks are included in Box 1.

Box 1. Control Measures Reported During AGE Outbreaks.

- ✔ Employee training – staff, food worker and housekeeping
- ✔ Personal protective equipment, including surgical masks where public vomiting events may have occurred
- ✔ Enforcing employee exclusion criteria
- ✔ Isolation, serve meals in rooms
- ✔ Cancel large community events
- ✔ Cancel flu vaccination clinic
- ✔ Restrict visitors by posting a notice
- ✔ Restrict activities
- ✔ Reduce traffic
- ✔ Tray service
- ✔ Increase cleaning and hand washing
- ✔ Consult with medical director



Noroviruses are the most common cause of viral gastroenteritis outbreaks and is often called the “winter vomiting disease” or “stomach flu.” Although it is commonly referred to as the stomach flu, it has no relationship to the influenza

Source: CDC

virus that causes respiratory infections. The Centers for Disease Control and Prevention estimates noroviruses cause 23 million cases of acute gastroenteritis each year and about 50 percent of all foodborne outbreaks. Hand washing, staying home when ill and cleaning environmental surfaces are important in preventing norovirus infections.

For more information about prevention of viral gastroenteritis or to report an outbreak, visit www.health.state.nd.us/disease/Gastroenteritis/ or call Disease Control at 800.472.2180.

2007 Changes to Reportable Conditions

On April 1, 2007, changes to the North Dakota Administrative Code (NDAC) chapter 33-06-01 became effective, resulting in two changes and additions to the NDDoH reportable conditions list.

Changes were made to reporting requirements for methicillin-resistant *Staphylococcus aureus* (MRSA) and vancomycin-resistant or intermediate resistant *Staphylococcus aureus* (VISA and VRSA).

Only invasive MRSA isolates should be reported as of April 1, 2007. Invasive sites include sterile sites such as blood, cerebral spinal fluid, pleural fluid and joint fluids. Sites not considered invasive include isolates collected from the nares or wounds. Also, the definition of VRSA has been changed to “any isolate demonstrating intermediate or greater resistance to vancomycin with a MIC greater than or equal to 4 µg/ml.”

New conditions added to the reportable conditions list include laboratory incidences involving the possible release of category A bioterrorism agents or novel influenza viruses into the laboratory environment and pregnancy in a person infected with hepatitis B, HIV, Group B Streptococcus, syphilis or other perinatally transmissible disease.

To view a list of reportable disease conditions in North Dakota or to report a disease, visit www.ndhealth.gov/Disease/Disease%20Reporting/Report.htm.



West Nile virus surveillance in the state began June 1, 2007. Weekly updates are available every Wednesday on the state health department’s West Nile virus website. www.ndhealth.gov/wnv

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Summary of Selected Reportable Conditions

North Dakota, 2006-2007

Reportable Condition	April-June 2007*	January-June 2007*	April-June 2006	January-June 2006
Campylobacteriosis	41	51	39	56
Chlamydia	401	862	407	888
Cryptosporidiosis	8	10	9	11
<i>E. coli</i> , shiga toxin positive (non-O157)	7	7	2	3
<i>E. coli</i> O157:H7	4	6	1	4
Enterococcus, Vancomycin-resistant (VRE)	55	137	66	107
Giardiasis	13	16	9	15
Gonorrhea	35	60	27	58
Haemophilus influenzae (invasive)	1	2	2	2
Hantavirus	0	0	0	1
Acute Hepatitis A	0	0	1	1
Acute Hepatitis B	0	0	0	0
Acute Hepatitis C	0	0	0	0
HIV/AIDS ¹	6	12	5	25
Legionellosis	1	2	0	0
Listeria	0	0	1	1
Lyme Disease	0	0	3	3
Malaria	0	1	0	1
Meningitis, bacterial ² (non meningococcal)	1	1	0	0
Meningococcal disease ³	1	2	1	3
Mumps	2	3	11	12
Pertussis	3	10	11	24
Q fever	0	0	0	0
Rabies (animal)	5	11	12	17
Salmonellosis	23	33	10	19
Shigellosis	0	6	5	8
Staphylococcus aureus, Methicillin-resisitant (MRSA)	347	992	449	870
Streptococcal disease, Group A ⁴ (invasive)	4	13	4	9
Streptococcal disease, Group B ⁴ (infant < 3 months of age)	2	3	1	2
Streptococcal disease, Group B ⁴ (invasive ⁵)	9	18	9	19
Streptococcal disease, other ⁴ (invasive)	2	7	2	6
Streptococcal pneumoniae ⁴ , (invasive, children < 5 years of age)	0	1	2	3
Streptococcal pneumoniae ⁴ (invasive ⁶)	27	35	20	35
Streptococcus pneumoniae ⁴ , drug-resistant	0	0	0	0
Tuberculosis	2	3	1	4
Tularemia	0	0	2	2
West Nile Virus Infection	9	9	1	1

*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.