

VECTOR BORNE AND ZOO NOTIC DISEASES

NORTH DAKOTA

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NORTH DAKOTA
DEPARTMENT of HEALTH

HANTAVIRUS

- Retrospective
 - ✦ 1978 one case
 - ✦ 1982 two cases
- 1993 two cases
- 2000 two cases

LYME DISEASE

- 1982-1992
 - ✦ 27 cases
- 1993-2003
 - ✦ 7 cases
- Most recent in 2005
- Associated with out of state travel

ROCKY MT. SPOTTED FEVER

- Past 10 years
 - ◆ Three cases
- Most recent
 - ◆ 2001

TULAREMIA

- Past 10 years
 - ✦ Five cases
- Most recent
 - ✦ 2004

RABIES

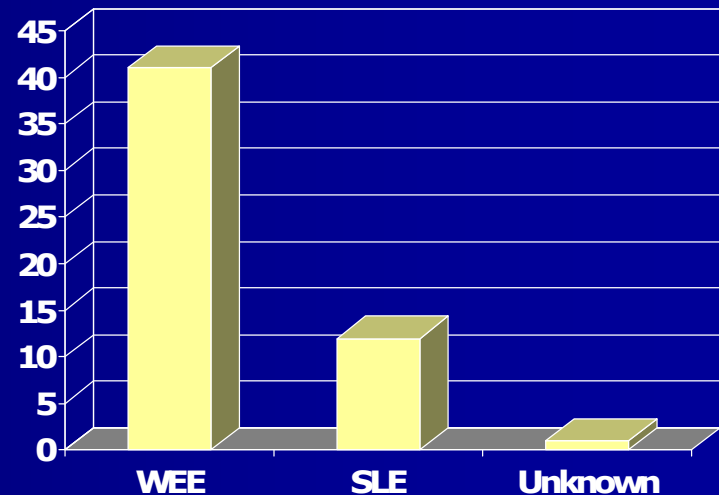
- 36 cases in 2005
 - ◆ Average 50-75 cases/year

SPECIES	# CASES
Bat	1
Cat	6
Cow	2
Dog	5
Skunks	22

ENCEPHALITIS

WEE and SLE

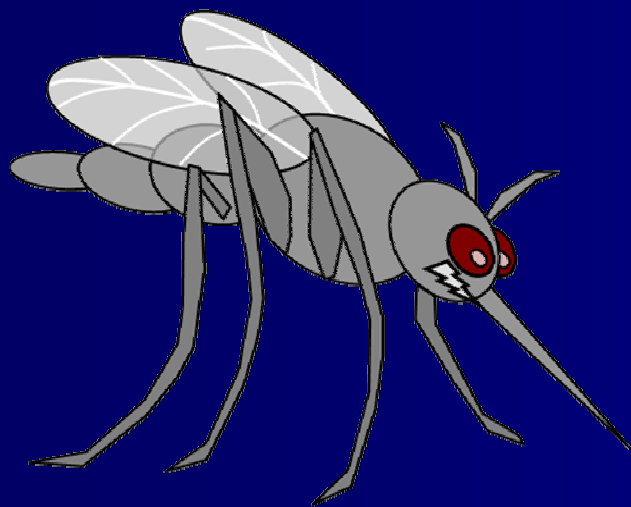
- 1975 outbreak
 - ✦ 54 cases
- 41 WEE
- 12 SLE
- 1 Unknown Etiology



WWE and SLE

	WEE	SLE
1976	0	4
1977	3	0
1986	0	1
1987	2	1
1991	1	0

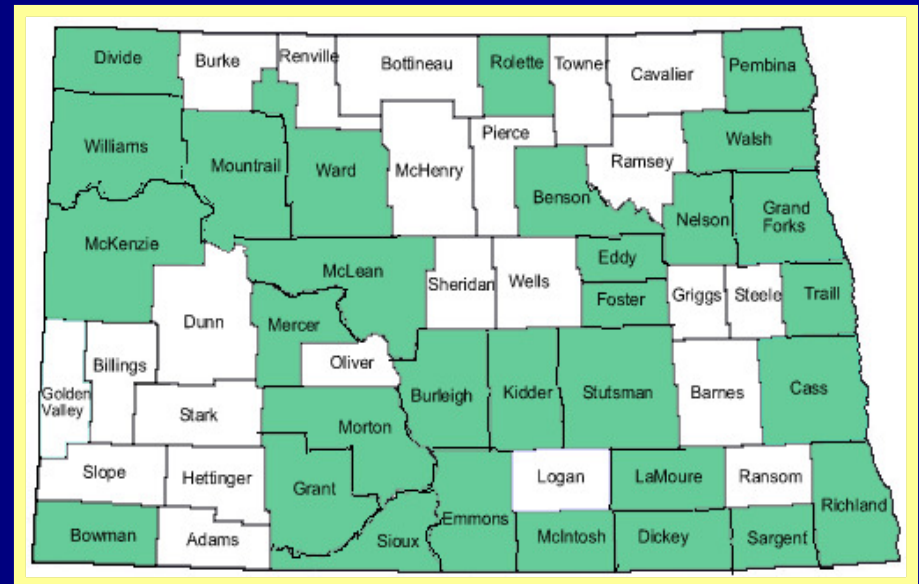
WEST NILE VIRUS



HUMAN CASES

■ 2005

- ◆ 1,468 samples tested
- ◆ 86 positive



WNV

- Of 86 reported cases
 - ◆ 12 (14%) encephalitis
 - One AFP
 - ◆ 74 (86%) WNF
- 5 asymptomatic blood donors identified
- No deaths reported

2005 WNV SUMMARY

Total Cases: 86

Age Information:

Gender:

Female 32

Male 54

Hospitalized: 30

Active Counties: 30

Range

<10

10-19

20-29

30-39

40-49

50-59

60 +

Cases

1

5

8

13

23

14

22

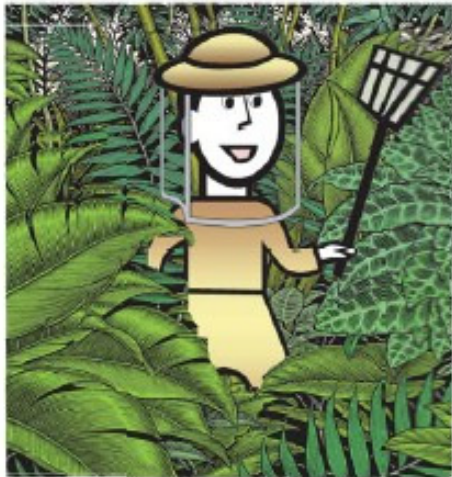
SURVEILLANCE

- Dead bird testing
 - ◆ 17 positive (31 tested)
- Sentinel Chickens
 - ◆ 27 positive serums (573 tested)
- Horses
 - ◆ 4 positive (53 tested)
- Mosquito
 - ◆ 4 positive pools (243 tested)

PREVENTION

- Mosquito control
 - ◆ Coordinated by LPHU
- Community intervention
 - ◆ Insect repellent distribution
 - e.g. McQuaid, Int'l Pow-Wow
- Public education
 - ◆ Brochures\Posters

Mosquitoes become carriers of West Nile virus when they feed on birds that are already sick. Mosquitoes then can give West Nile to other birds, humans and horses.



SHOULD I REPORT DEAD BIRDS?

Help watch for West Nile virus by reporting dead birds online at www.ndwnv.com.

Certain birds can be tested for West Nile. Check with your local health unit, Indian Health Service sanitarian, local veterinarian, county extension agent or vector control office for bird testing criteria.

Vaccinate your horses.
Foals too!! Contact your
local veterinarian.



FOR MORE INFORMATION ABOUT WEST NILE VIRUS:

Contact your state or local health
department.

Additional information can be found at
www.ndwnv.com

or by calling the North Dakota
Department of Health at 800.472.2180.



NORTH DAKOTA
DEPARTMENT of HEALTH

Revised 7/2005



JOIN THE
SWAT TEAM
AND

SURVIVE
WEST NILE VIRUS





**JOIN THE
SWAT TEAM
AND SURVIVE
WEST NILE VIRUS**

- ✦ Wear light-colored, long pants and long-sleeved shirts.
- ✦ Stay indoors during the evening and early morning hours when mosquitoes are most active.
- ✦ Keep the grass and shrubbery cut short.
- ✦ Use an insect repellent containing DEET, picaridin, oil of lemon eucalyptus or permethrin. Always follow the directions on the label.
- ✦ Empty water from buckets, tarps, wading pools, troughs and potted-plant trays every four to five days.

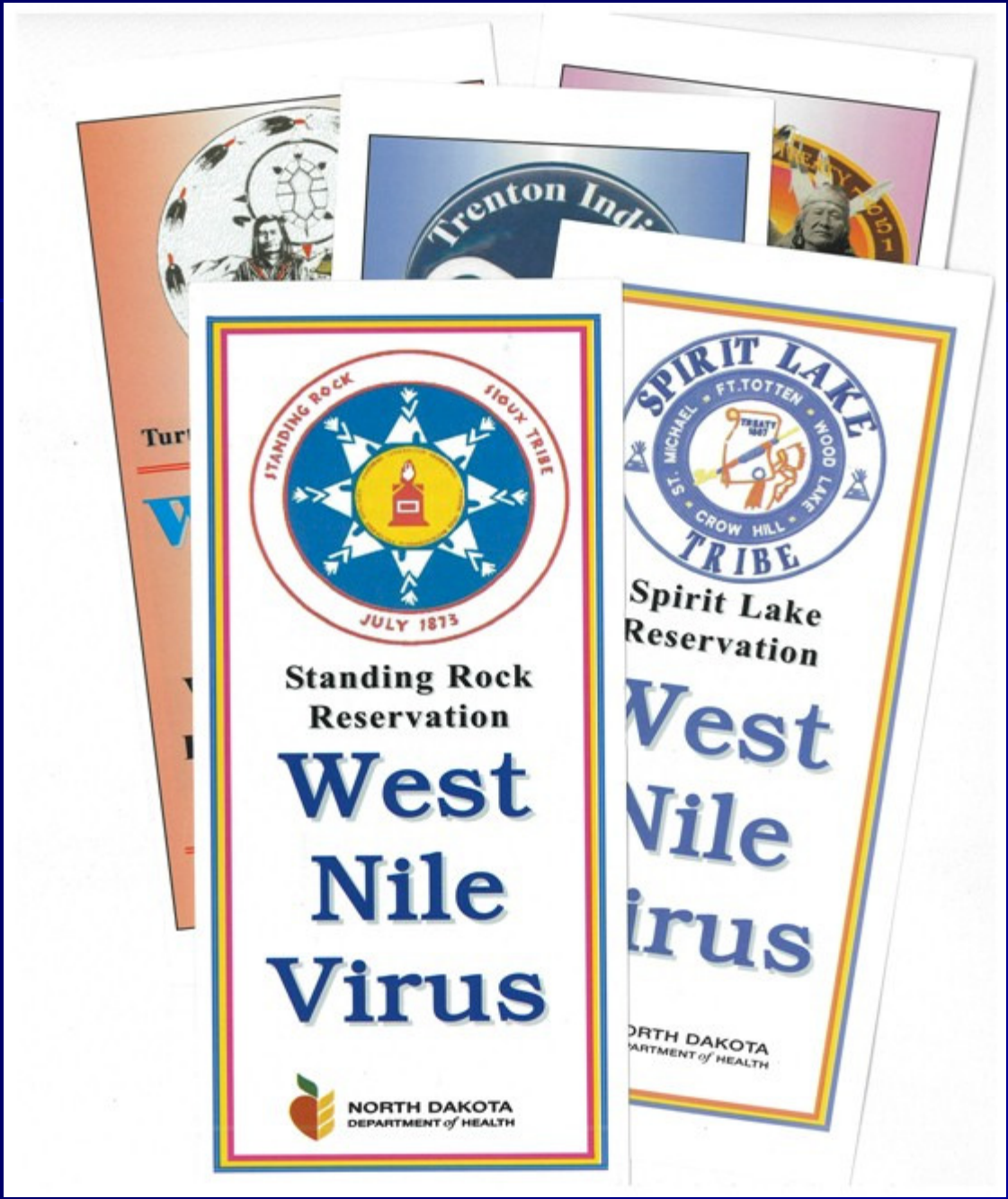
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800.472.2190.





Standing Rock
Reservation
**West
Nile
Virus**

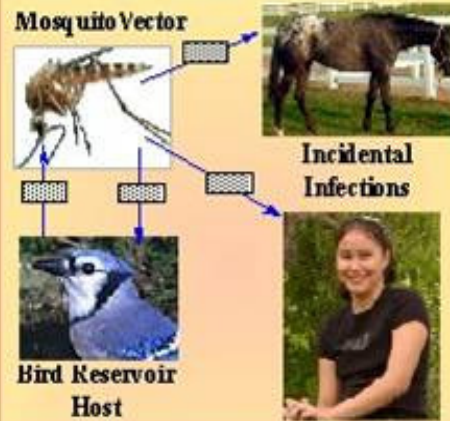


Spirit Lake
Reservation
**West
Nile
Virus**

NORTH DAKOTA
DEPARTMENT of HEALTH

Mosquitoes transmit West Nile virus. Mosquitoes become infected when they feed on infected birds. The mosquito can then transmit the virus to other birds, humans or horses.

West Nile Virus Transmission Cycle



SHOULD I REPORT DEAD BIRDS?

Help monitor for West Nile virus by reporting dead birds to your local IHS sanitarian.

Birds must be tested within 48 hours of death. The presence of fly larvae (maggots) is a sign that the bird has been dead too long to be tested.

Vaccinate your horse(s). Foals too!! Contact your local veterinarian.



FOR MORE INFORMATION ABOUT WEST NILE VIRUS

You can contact Jennifer Malatterre at 701.477.6111 ext 129 or your health-care provider.

Additional information can be found at:
www.ndwnv.com
or by calling the North Dakota Department of Health at 800.472.2180.



Turtle Mountain Reservation

West Nile Virus



WHAT IS WEST NILE VIRUS?

West Nile virus is transmitted by mosquitoes and primarily affects birds. In humans, it may range from a mild flu-like illness to encephalitis (inflammation of the brain).



In North Dakota in 2003, a total of 617 people had West Nile virus and 5 died. Of those 617 people, 167 needed to be hospitalized. One hundred and six out of the 167 hospitalized were age 50 or older.

PROTECT YOURSELF AND YOUR FAMILY!

- ✦ Wear light-colored, long pants and long-sleeved shirts.
- ✦ Stay inside at sundown and sunset when mosquitoes are most active.
- ✦ Use insect repellent with no more than 30 percent DEET for adults and children. Follow the directions on the label.
- ✦ Only adults should apply repellent on children.
- ✦ Use yellow "bug lights" for outdoor lighting.
- ✦ Install or repair screens on windows and doors.

You can still enjoy pow-wows and other outdoor activities. Just take the proper precautions.



CONTROL MOSQUITO BREEDING!

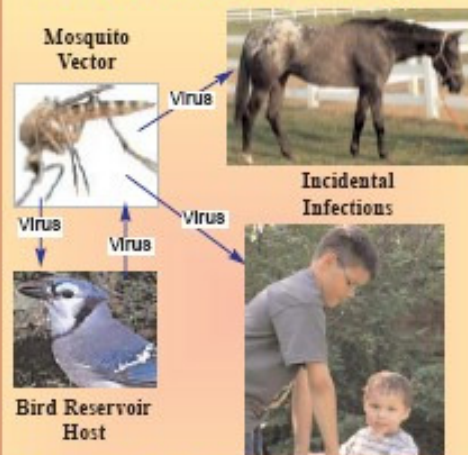
Mosquitoes can breed in a small amount of standing water in just a few days. Here are ways to help reduce mosquito breeding around your home.

- ✦ Turn over boats, wheelbarrows and other water-holding items or store them where they will not collect water.
- ✦ Keep grass cut short.
- ✦ Remove old tires from your yard. For more information call the Division of Waste Management at 701.328.5163.
- ✦ Clean roof gutters and downspout screens.
- ✦ Empty water from buckets, tarps, wading pools, troughs and potted-plant trays every four to five days.
- ✦ Cover trash cans to keep out rainwater or drill holes in the bottom.



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FOR MORE INFORMATION ABOUT WEST NILE VIRUS

You can contact Mary Fredricks at 701.627.4701 or your health-care provider.

Additional information can be found at:

www.ndwnv.com

or by calling the North Dakota Department of Health at 800.472.2180.

Adapted with permission from the Cheyenne River Sioux Tribe Environmental Health



**Fort Berthold
Reservation**

West Nile Virus



**NORTH DAKOTA
DEPARTMENT OF HEALTH**

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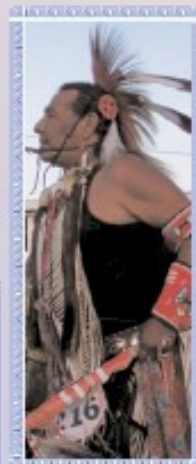


In North Dakota in 2003, a total of 617 people had West Nile virus and 5 died. Of those 617 people, 167 needed to be hospitalized. One hundred and six out of the 167 hospitalized were age 50 or older.

PROTECT YOURSELF AND YOUR FAMILY FROM MOSQUITO BITES!

- ✦ Wear light-colored, long pants and long-sleeved shirts.
- ✦ Stay inside or in a screened-in area at sundown and sunset when mosquitoes are most active.
- ✦ Use insect repellent products with no more than 30 percent DEET for adults and children. Follow the directions on the label.
- ✦ Only adults should apply repellent on children.
- ✦ Use yellow "bug lights" for outdoor lighting.
- ✦ Install or repair screens on windows and doors.

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Acknowledgements

- **North Dakota Department of Health**
- **NDDoH Division of Microbiology**
- **NDSU Veterinary Diagnostic Laboratory**
- **Local Public Health Units**
- **North Dakota Board of Animal Health**
- **North Dakota City and County Vector Control Agencies**
- **Volunteer Mosquito Trap Operators**
- **North Dakota Environmental Health Practitioners**
- **North Dakota County Extension Agents**
- **Indian Health Services**
- **USDA Wildlife Services**
- **Local Veterinarians**
- **North Dakota Game and Fish**
- **U.S. Fish and Wildlife Services**
- **North Dakota Zoo Personnel**
- **North Dakota City and County Auditors**
- **North Dakota Parks and Recreation Department**
- **Tribal Health**
- **North Dakota Healthcare Professionals**
- **North Dakota Air Force Bases**
- **Department of Emergency Management**
- **Emergency Preparedness and Response Coordinators**
- **NDSU Extension Veterinarian and Staff**
- **North Dakota Bird Watchers Clubs**
- **Theodore Roosevelt National Park**
- **North Dakota Colleges and Universities**
- **Army Corps of Engineers**
- **Turtle Mountain Community College**
- **Highway Patrol, Local Police Units and Sheriff's Departments**