



DuPage County Health Department R E V I E W

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The purpose of this two-page surveillance update is to promote the control and prevention of **communicable disease (CD)** by providing clinically relevant information and resources to healthcare professionals in DuPage County.

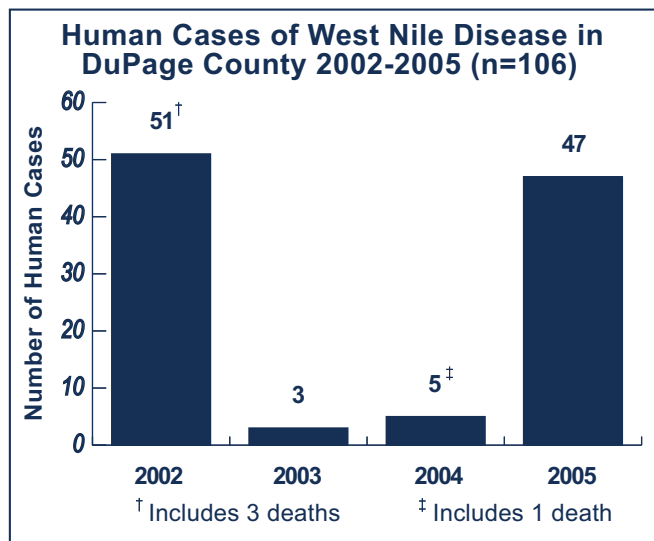


Under the Microscope West Nile Virus

For questions or to report suspect and known cases of West Nile virus, please call Communicable Disease Services at 630-682-7979, ext. 7553.

West Nile virus emerged in the United States in the New York metropolitan area in the fall of 1999. Since then, the virus, which can be transmitted to humans by the bite of an infected mosquito, has quickly spread across the country.¹

In Illinois, West Nile virus was first identified in September **2001** when laboratory tests confirmed its presence in two dead crows found in the Chicago area. In **2002**, the state's first human cases and deaths from West Nile disease were recorded and all but two of the state's 102 counties eventually reported a positive human, bird, mosquito or horse case. By the end of 2002, Illinois had counted more human cases (884) and deaths (67) than any other state in the nation. In **2003**, the epicenter of West Nile disease moved westward. Colorado reported the highest number of cases (2,947), easily surpassing the caseload record for the mosquito-borne disease set the previous year by Illinois. The number of West Nile human cases in Illinois fell dramatically with just 54 reported and one death. Illinois' caseload in **2004** was slightly higher than the previous year with 60 reported cases and four deaths. For the second consecutive year, the country's western states had the most cases with California leading the way with 771, followed by Arizona with 391 and Colorado with 276. In **2005**, Illinois' reported cases increased to 252, including 12 deaths; the first human cases were reported on July 29th and the first death occurred on August 27th.¹



The timely identification and reporting of persons with acute WNV or other arboviral infections may have significant public health implications and will likely augment the public health response to reduce the risk of additional human infections.² West Nile virus disease may be classified as **West Nile fever** or **neuroinvasive disease** cases, based on clinical and laboratory criteria.³ Mild cases of West Nile infections (West Nile fever) may cause a slight fever or headache. More severe infections (neuroinvasive disease, including West Nile encephalitis, meningitis, and myelitis) are marked by a rapid onset of a high fever with head and body aches, disorientation, tremors, convulsions, and rarely, paralysis or death. Usually symptoms occur from 3 to 14 days after the bite of an infected mosquito, and generally last for 3 to 6 days. Persons at the highest risk for serious illness are those 50 years of age or older. Treatment is supportive, often involving hospitalization, intravenous fluids, respiratory support, and prevention of secondary infections for patients with severe disease.⁴

The best way to **prevent** West Nile disease or any other mosquito-borne illness is to reduce the number of mosquitoes around your home and neighborhood and to take personal precautions to avoid mosquito bites. Here are some suggestions:

- Avoid being outdoors when mosquitoes are most active, especially between dusk and dawn.
- When outdoors, wear shoes and socks, long pants and a long-sleeved shirt, and apply insect repellent that includes DEET, picaridin or oil of lemon eucalyptus according to label instructions.
- Make sure doors and windows have tight-fitting screens. Try to keep doors and windows shut, especially at night.
- **Eliminate all sources of standing water that can support mosquito breeding**, including water in birdbaths, ponds, flowerpots, wading pools, tire swings and any other receptacles.

References:

1. <http://www.idph.state.il.us/envhealth/wnv.htm>
2. <http://www.cdc.gov/ncidod/dvbid/westnile/clinicians/reporting.htm>
3. <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5528a4.htm>
4. <http://www.idph.state.il.us/envhealth/wnvclinicians.htm#treat>