



State of Illinois
Illinois Department of Public Health

Vector Control Program Used Tire Fund Status Report

January 2020

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Legislative History

In the late 1980s, a committee of representatives from the Illinois Pollution Control Board (IPCB), Illinois Environmental Protection Agency (IEPA), Illinois Department of Agriculture (IDOA), Illinois Department of Energy and Natural Resources (now the Illinois Department of Natural Resources [IDNR]), and the Illinois Department of Public Health (IDPH) proposed changes to regulate the disposal of used tires, establish research, and implement vector control programs. The proposed regulations corresponded to the introduction of the Asian tiger mosquito (*Aedes albopictus*), which uses tires as a preferred breeding site. In September 1989, the Used Tire Act (ILCS 5/53 to 55.7a) and the Vector Control Law (ILCS 95/1 to 11) were passed by the Illinois General Assembly and signed by Gov. James R. Thompson. This legislation established the Used Tire Management Fund, which was expected to receive \$2 million annually. The money was to be distributed as follows: 44% (\$880,000) to IEPA to regulate commercial used tire collection and reprocessing; 39% (\$780,000) to IDNR for grants to private industry for recycling and energy generation and for research on mosquitoes associated with tires; 13% (\$260,000) to IDPH for mosquito-borne disease surveillance and grants to local health departments (LHDs); and 2% each (\$40,000) to the IPCB and the IDOA for their respective activities relating to used and waste tires.

Public Act 87-727 (415 ILCS 5/55.8 to 5/55.15), a 1991 amendment to the Used Tire Act, imposed a \$1 tax on all new retail tire sales that provided IEPA and IDNR with about \$1.5 million in additional funds. IDPH funding, however, remained the same. Public Act 89-499, effective July 1, 1996, amended the Used Tire Act to increase the percentage of the Used Tire Management Fund available to IDPH from 13% to 25% of the first \$2 million collected or \$500,000 per state fiscal year. Also, Public Act 89-499 required IDPH to submit a report to the legislature biennially, beginning January 1, 1998, concerning its activities under the Used Tire and Vector Control Acts. Public Act 100-0327, effective August 24, 2017, increased the total appropriation of the Used Tire Management Fund to \$4 million, therefore increasing IDPH's appropriation to \$1 million per state fiscal year.

This report fulfills the biennial report requirement of Public Act 89-499 for 2018 and 2019.

Introduction: Public Health and Mosquito-borne Diseases

Mosquitoes are generally divided into two categories, nuisance mosquitoes and vector mosquitoes. Nuisance mosquitoes emerge synchronously after heavy rainfalls and can make outdoor activities unpleasant due to their high adult numbers. These mosquitoes, though a pest, do not typically spread disease to humans. Vector mosquitoes are typically container-breeding mosquitoes that can transmit disease to humans. Vector mosquitoes reproduce in high numbers when there is a wet spring, followed by a hot, dry summer.

The most common mosquito-borne disease in Illinois is West Nile virus (WNV). Other mosquito-borne diseases that have occurred in the state include La Crosse encephalitis virus (LACV) and St. Louis encephalitis virus (SLEV). These viral infections typically occur between June and October when mosquitoes are most active. Symptoms from these viruses present similarly; however, they do vary in the degree of severity and can affect different age groups.

In Illinois, the vector mosquito that spreads WNV and SLEV is the *Culex pipiens*, the northern house mosquito. This mosquito breeds in stagnant water with a high amount of organic debris, such as abandoned swimming pools, catch basins, and abandoned tires. The vector of LACV is *Aedes triseriatus*, the tree hole mosquito. *Aedes triseriatus* breeds in tree holes, but also tires and containers in which water can collect. For additional information about the epidemiology and prevention of mosquito-borne diseases see Appendices I, II, and III.

IDPH Vector Prevention and Control Activities Supported by the Used Tire Fund

West Nile Virus Surveillance and Control

IDPH's Vector Control Program maintains the statewide dataset for mosquito surveillance and virus testing. Vector Control Program staff, supported by the Used Tire Fund, provide training to LHD personnel in surveillance and control of mosquitoes, flies, rodents, bats, birds, ticks, and other vectors of disease and public health pests. Vector Control Program activities include:

- Collecting mosquito samples for WNV and SLEV testing and assisting local agencies doing similar testing.
- Coordinating the WNV dead bird surveillance effort by LHDs.
- Assisting the University of Illinois Cooperative Extension Service with training for mosquito pesticide applicator licenses.
- Conducting mosquito control training for local officials.
- Providing technical information about WNV and other vector-borne diseases to LHDs, municipalities, and citizens.
- Preparing and distributing public information materials about WNV and related vector-borne disease issues.
- Assisting IEPA in investigations of used tire sites.
- Maintaining the WNV hotline.
- Obtaining federal funding for WNV and other vector-borne disease surveillance.
- Responding to inquiries about other vectors and pests, such as ticks, rodents, bed bugs, nuisance birds, and bats in buildings.

The primary activity conducted directly by IDPH through the Used Tire Fund is environmental surveillance (monitoring and testing) of the animal reservoirs of mosquito-borne disease and arthropod vectors. Testing of dead crows, blue jays, other birds, and mosquito samples provides an early warning system to detect WNV activity. The Centers for Disease Control and Prevention (CDC) has found that counties recording a WNV-positive bird before August 1 are twice as likely to have a human case than those recording a WNV-positive bird after August 1. These data are used to alert the public about the imminent threat of WNV to human health. IDPH's environmental health staff, assisted by LHDs and other local agencies, collect mosquitoes and birds and test specimens for WNV and SLEV (Tables 1-3).

Table 1. Dead Birds Collected and Tested for West Nile Virus During 2018 and 2019*

Year	Total Dead Birds Tested	Total WNV Positive Samples (%)
2018	270	34 (12.6%)
2019	167	4 (2.4%)

*The University of Illinois Veterinary Diagnostic Laboratory provided laboratory testing of dead birds for WNV. All birds were collected by LHDs supported by grant funds from IDPH.

Table 2. Mosquito Samples Collected and Tested for West Nile Virus During 2018 and 2019*

Year	Total Mosquito Samples	Total WNV Positive Samples (%)
2018	17,443	3,013 (17.3%)
2019	17,696	1,202 (6.8%)

*Mosquitoes were collected by LHDs, Mosquito Abatement Districts, and IDPH regional staff.

Table 3. Mosquito Samples Collected and Tested for St. Louis Encephalitis During 2018 and 2019*

Year	Total Mosquito Samples	Total WNV Positive Samples (%)
2018	2,602	2 (0.1%)
2019	3,006	3 (0.1%)

*Mosquitoes were collected by LHDs, Mosquito Abatement Districts, and IDPH regional staff.

Mosquito Applicator Training Clinics

During 2018 and 2019, IDPH staff assisted the University of Illinois Cooperative Extension Service during the annual training program for mosquito control applicator licensing. As part of this effort, IDPH staff reviewed educational materials and exams, conducted training seminars at several locations throughout the state, and trained hundreds of mosquito control applicators at pesticide applicator clinics. Additionally, under an IDOA special rule (Illinois Pesticide Act, Section 250.210), IDPH Vector Control Program staff trained hundreds of local government staff to apply approved insecticides to control mosquito larvae.

Vector Surveillance and Pest Control Publications

IDPH staff are available to provide expertise about vectors and pests to the public, other state agencies, local government officials, health care staff, and the news media. A series of program-developed fact sheets on vectors and pests are available on IDPH's website. They include fact sheets on:

- | | | |
|-------------------------------|-----------------------------|----------------------------------|
| Ants | Cockroaches | Mites Affecting Humans |
| Arboviral Encephalitis | Clothes Moths and Carpet | Mosquitoes |
| Asian Tiger Mosquito | Beetles | Mosquitoes and Disease |
| Babesiosis | Common Ticks | Mosquito Prevention |
| Bats and Bat Exclusion | Common Tick Identification | Mosquito Spraying |
| Bed Bugs | DEET Insect Repellents | Municipal Rodent |
| Bees and Wasps | Ehrlichiosis | Management |
| Bird Exclusion and Dispersal | Fleas | Occasional Invaders |
| Biting Flies | Head Lice | Pest Control - Do It Yourself or |
| Black Flies ("Buffalo Gnats") | House and Other Filth Flies | Hire a Pro |
| Brown Recluse and Black | House Mouse Prevention and | Pyrethroid Insecticides |
| Widow Spiders | Control | Rat Prevention and Control |
| Carpenter Ants | Lyme Disease | Spiders |

Arthropod Identification Service for Citizens and Health Professionals

IDPH Vector Control Program staff have specialized training in identifying ticks, bed bugs, mosquitoes, spiders, cockroaches, fleas, rodents, and other pests, and are often contacted for assistance by citizens, LHD staff, and medical personnel. Annually, IDPH staff identify more than 100 specimens for the public and LHD personnel. Of these specimens, approximately 35% were ticks and 8% were bed bugs. Additionally, there continued to be considerable interest by the public and news media about the increasing incidence of tick-borne diseases, personal protection measures against mosquitoes, and the prevention and control of bed bug infestations.

***Aedes albopictus* Distribution**

Aedes albopictus (Asian Tiger Mosquito) distribution ranges are expanding throughout the United States. The occurrence of this vector in Illinois is of public health concern because WNV, LACV, and eastern equine encephalitis virus (EEEV) have been detected in *Aedes albopictus* in surrounding states. In addition, the global emergence of the Zika virus has increased concern about the presence of *Aedes albopictus*, although it is not the primary vector for Zika virus transmission. Thus, the spread of *Aedes albopictus*, which breeds in water-filled used tires and other containers, emphasizes the need for continued *Aedes albopictus* mosquito surveillance and abatement of discarded tires by IEPA and LHDs.

The IDPH Vector Control Program continued *Aedes albopictus* surveillance in 2018 and 2019. This included the capacity to identify *Aedes albopictus* mosquitoes, report established populations to CDC, and conduct Zika-specific education and preparedness (Table 4).

The Illinois distribution of *Aedes albopictus* has been monitored by a variety of agencies, including LHDs receiving Vector Surveillance and Control Grant funds from IDPH. As of December 4, 2019, *Aedes albopictus* populations have been detected in the following 50 Illinois counties:

- Adams
- Alexander
- Champaign
- Clark
- Clay
- Coles
- Cook
- Crawford
- DeKalb
- Douglas
- Edgar
- Edwards
- Effingham
- Fayette
- Franklin
- Gallatin
- Hamilton
- Jackson
- Jasper
- Jefferson
- Jersey
- Johnson
- Kane
- Kankakee
- Lawrence
- Logan
- Macon
- Macoupin
- Madison
- Marion
- Massac
- McLean
- Menard
- Montgomery
- Peoria
- Perry
- Piatt
- Pope
- Pulaski
- Randolph
- Richland
- Saline
- Sangamon
- St. Clair
- Union
- Vermilion
- Wabash
- Wayne
- Williamson
- White

Table 4. *Aedes albopictus* Identification During 2018 and 2019

Year	<i>Aedes albopictus</i> Identified
2018	6,457
2019	4,524

Aedes japonicus Distribution

Aedes japonicus, an invasive Japanese rock pool mosquito species, was most likely brought into the U.S. with the movement of used tires for retreading. It was first identified in Illinois in Champaign County in July 2006, during WNV surveillance activities conducted by the Illinois Natural History Survey Medical Entomology Laboratory (INHS MEL). WNV has also been detected in *Aedes japonicus* in surrounding states. Consequently, continued efforts by state and local agencies to remove or treat accumulations of used tires will help limit the involvement of *Aedes japonicus* in the WNV transmission cycle. As of December 4, 2019, *Aedes japonicus* has been found in these 32 Illinois counties:

- Adams
- Boone
- Brown
- Bureau
- Cass
- Champaign
- Christian
- Cook
- DeWitt
- DuPage
- Effingham
- Fulton
- Grundy
- Jackson
- Kane
- Knox
- LaSalle
- Lake
- Lee
- Logan
- Macon
- Macoupin
- McDonough
- McLean
- Menard
- Peoria
- Putnam
- Rock Island
- Sangamon
- Shelby
- St. Clair
- Vermilion

Emergency Public Health Fund Vector Surveillance and Control Grants

Effective July 1, 2003, Senate Bill 361 (now 415 ILCS 5/55.6a) amended the Environmental Protection Act to create the Emergency Public Health Fund. IDPH distributes grants from the Emergency Public Health Fund to approximately 96 certified LHDs for expenses related to West Nile virus and other vector-borne diseases. Grant awards are based on population and surveillance data (human cases, mosquito, and bird testing data) as required by statute.

The Vector Surveillance and Control Grants are used by LHDs primarily for WNV surveillance (testing of mosquitoes and birds and investigation of possible human cases). All LHDs are required to assist municipalities with preventive treatments of standing water impoundments (larviciding), such as street catch basins, roadside ditches, used tires, and similar locations. Preventive treatment with larvicides is the most effective method of mosquito control. Additionally, the LHD program may include public information activities, investigations of mosquito nuisance complaints, and epidemiological investigations of human cases of WNV and other mosquito-borne diseases. LHDs can conduct limited prevention and control activities for non-mosquito vectors, such as ticks, rats, and bats.

In state fiscal years 2019 and 2020, \$2.8 million was awarded to 96 LHDs to conduct the following WNV activities:

- Inspect and treat mosquito production and breeding locations with larvicide.
- Collect and test mosquitoes for WNV and SLEV.
- Locate and remove discarded tire accumulations.,
- Conduct public information activities about prevention of mosquito-borne diseases.
- Train municipal staff in mosquito control.
- Investigate suspected human WNV cases.
- Conduct field surveys for other disease vectors.

Appendix I: Epidemiology and Prevention of Mosquito-borne Diseases

Different species of mosquitoes can transmit different diseases to humans. *Culex pipiens* (northern house mosquito) can transmit West Nile virus (WNV) and St. Louis encephalitis virus (SLEV). The house mosquito is active from dusk to dawn. They lay their eggs as a raft in natural and man-made containers, such as tree holes, ditches, sewage and septic system water, catch basins (storm drains), non-chlorinated swimming and wading pools, decorative ponds, bird baths, flower pots, buckets, clogged gutters, and abandoned tires. Any container that harbors water more than seven days can produce these mosquitoes; therefore, containers should be emptied weekly.

Aedes triseriatus (tree hole mosquito) is the primary vector of La Crosse encephalitis virus (LACV). The tree hole mosquito is a day biter and lays its eggs in containers that fill with water during a rain event, such as tree holes, discarded tires, cans, buckets, and barrels. They are often found in and around wooded areas. It is also important to empty outdoor containers weekly to prevent this mosquito from breeding.

Aedes albopictus (Asian tiger mosquito) is mostly a nuisance, day-biting mosquito in Illinois but can transmit dengue, chikungunya, Zika, and yellow fever viruses in areas where the diseases are endemic. The female mosquito lays eggs just above the surface of the water in a hard-sided container like a tree hole, old bucket or used tire. When rain covers the eggs with water, the larvae hatch. *Aedes albopictus* were brought to the area in used tire casings. Currently, they are spreading their range and establishing populations throughout Illinois.

Aedes vexans (inland floodwater mosquito) are often the first mosquito noticed in spring and later after heavy rainfall. Adults emerge together from flooded areas and are often so numerous that natural controls, such as predators and parasites, are overwhelmed. *Aedes vexans* may fly more than 10 miles from their larval development sites in search of blood meals. In Illinois, they may bite more people than any other species. They typically begin flying in late afternoon and are most active after dark but will bite any time of day if disturbed while resting in shaded, heavily vegetated areas. Fortunately, in the U.S., they rarely, if ever, transmit disease to humans, and typically die in autumn with the first hard frost.

The cycles of mosquito-borne viral encephalitis and meningitis diseases are similar. Most involve various bird species that are said to be reservoirs. The bird reservoirs are infected with the virus from an infected mosquito. The birds produce enough virus in their bodies to infect additional mosquitoes. These newly infected mosquitoes can then transmit the disease to other animals, such as birds, horses, or humans. Horses and humans are generally thought of as dead-end hosts because they do not produce enough virus to infect mosquitoes. Thus, dead-end hosts are not involved in the spread of disease. Dead-end hosts may not spread the disease, but they can become ill. Mosquito-borne encephalitis symptoms include high fever, headache, neck stiffness, stupor, disorientation, coma, tremors, convulsions, muscle weakness, vision loss, numbness, and paralysis. Those at the highest risk are people over 60 years of age.

WNV is the most common mosquito-borne disease in Illinois. WNV arrived in the United States in 1999 and in 2002, Illinois led the nation in human WNV cases with 884 cases and 67 deaths. WNV epidemics occur in cycles. The last epidemic was in 2012; Illinois had 290 human cases and 12 human deaths. WNV follows the mosquito-borne encephalitis cycle. Mosquitoes infect birds, the birds amplify the virus and infect new mosquitoes, and infected mosquitoes infect dead-end hosts, such as humans and horses.

About 1 in 5 people who are infected with WNV develop a fever with other symptoms, such as headache, body aches, joint pains, vomiting, diarrhea, or rash. About 1 out of 150 infected people develop a serious, sometimes fatal, illness such as encephalitis (inflammation of the brain) or meningitis (inflammation of

the membranes that surround the brain and spinal cord). There are no specific vaccine or antiviral treatments for the disease. Management of symptoms is the primary method of treatment.

SLEV is very similar to WNV. Both are spread by the same vector and both follow the mosquito-borne encephalitis cycle. SLEV human outbreaks rarely occur, but the virus is always present in the environment in mosquitoes and birds. Illinois had one human case between 2008 and 2019. Less than 1% of SLEV infected individuals experience symptoms. The onset in individuals that experience symptoms is abrupt, with fever, headache, dizziness, nausea, and malaise. Signs and symptoms intensify over a period of several days to a week. Some patients spontaneously recover after this period; others develop signs of central nervous system infections, including stiff neck, confusion, disorientation, dizziness, tremors, and unsteadiness. Coma can develop in severe cases. The disease is generally milder in children than in older adults. There are no specific vaccine or antiviral treatments for the disease. Management of symptoms is the primary method of treatment.

LACV survives in dormant eggs through the winter and develop into infected, flying mosquitoes in the spring. The virus is amplified in vertebrate hosts, especially chipmunks and squirrels. The mosquitoes can then infect dead end hosts such as humans. LACV disease symptoms include fever, headache, nausea, vomiting, fatigue, and lethargy. Severe neuroinvasive disease (disease affecting the nervous system) occurs most frequently in children under the age of 16. There are no specific vaccine or antiviral treatments for the disease. Management of symptoms is the primary method of treatment.

Mosquito-borne diseases can be prevented through several methods. It is best to keep all outdoor containers free of standing water, maintain vegetation around your home, and clean out your gutters regularly. Report areas of standing water around your home to the LHD. Avoid places and times when mosquitoes bite. Be sure door and window screens are tight-fitting and in good repair. Wear appropriate clothing, such as light-colored, long-sleeved tops and long pants. When it is necessary to be outdoors, apply insect repellent as indicated on the repellent label. For most situations, 10% to 25% DEET is adequate. LHDs also apply larvicide to mosquito production habitats to control breeding.

Appendix II: Illinois West Nile Virus Surveillance Data: 2001 – 2019

WNV activity in Illinois has fluctuated annually, being largely dependent on summer weather conditions. WNV is endemic, so the WNV surveillance system in Illinois is aimed at watching for unusual WNV activity each summer. Many communities increased WNV prevention efforts since the original 2002 WNV outbreak, specifically for *Culex* mosquitoes in catch basins. Consequently, this increased effort to suppress *Culex* mosquitoes through larviciding has reduced the risk of human disease in Illinois. Below is a summary of WNV activity in Illinois (Table 1).

Table 1: West Nile virus (WNV) surveillance data from 2001 to 2019

Year	Confirmed Human Cases (Deaths)	# of Counties with Any WNV Activity	# of Positive Birds	# of Positive Mosquito Samples
2001	0	7	138	20
2002	884 (66)	100	517	624
2003	54 (1)	77	236	507
2004	60 (4)	62	234	1,671
2005	252 (12)	55	232	2,523
2006	215 (10)	77	169	3,350
2007	101 (4)	48	39	1,552
2008	20 (1)	28	31	658
2009	5 (0)	36	26	404
2010	61 (4)	30	64	2,296
2011	34 (3)	19	21	1,068
2012	290 (12)	55	128	3,948
2013	117 (11)	76	88	2,716
2014	44 (4)	50	41	1,275
2015	77 (9)	64	51	1,713
2016	155 (8)	61	74	2,433
2017	90 (8)	63	25	2,022
2018	176 (17)	74	34	3,013
2019*	26 (1)	46	4	1,202

*Provisional data as of December 4, 2019.

Appendix III: Illinois Counties with the Most WNV Human Cases: 2002 – 2019

Confirmed Cases	County	Cases	Population	Incidence per 100,000 population
2019: 26*	Cook	14	5,203,499	0.3
	DuPage	6	929,386	0.6
Confirmed Cases	County	Cases	Population	Incidence per 100,000 population
2018: 176	Cook	104	5,203,499	2.0
	DuPage	18	929,386	1.9
	Lake	8	703,047	1.1
	Kane	7	531,715	1.3
	Will	4	689,529	0.6
Confirmed Cases	County	Cases	Population	Incidence per 100,000 population
2017: 86	Cook	51	5,203,499	1.0
	DuPage	6	929,386	0.6
	Lake	6	703,047	0.9
	McHenry	4	307,004	1.3
	Winnebago	3	285,873	1.0
Confirmed Cases	County	Cases	Population	Incidence per 100,000 population
2016: 155	Cook	90	5,203,499	1.7
	DuPage	10	929,386	1.1
	Kane	6	531,715	1.1
	Will	9	689,529	1.3
Confirmed Cases	County	Cases	Population	Incidence per 100,000 population
2015: 77	Cook	27	5,224,823	0.5
	DuPage	9	931,819	1.0
	Lake	5	703,413	0.7
Confirmed Cases	County	Cases	Population	Incidence per 100,000 population
2014: 44	Cook	26	5,246,456	0.5
	DuPage	5	932,708	0.5
	Kane	2	527,306	0.4
	Lake	2	708,186	0.3
Confirmed Cases	County	Cases	Population	Incidence per 100,000 population
2013: 117	Cook	60	5,246,635	1.1
	DuPage	6	931,523	0.6
	Franklin	2	39,572	5.1
	Jackson	2	59,981	3.3
	Lake	6	704,000	0.9
	McHenry	2	307,367	0.7
	McLean	2	174,893	1.1
	St Clair	5	265,065	1.9
Vermilion	3	80,418	3.8	

Confirmed Cases	County	Cases	Population	Incidence per 100,000 population
2012: 290	Cook	174	5,194,675	3.4
	DuPage	56	916,924	6.1
	Kane	13	515,269	2.5
	Lake	7	644,000	1.1
	McHenry	6	308,760	1.9
	Will	11	677,560	1.6
Confirmed Cases	County	Cases	Population	Incidence per 100,000 population
2011: 34	Cook	22	5,194,675	0.4
	DuPage	2	916,924	0.2
	Marion	3	39,437	7.6
Confirmed Cases	County	Cases	Population	Incidence per 100,000 population
2010: 61	Cook	30	5,194,675	0.6
	DuPage	17	916,924	1.9
	Kane	5	515,269	0.9
	Kendall	2	114,736	1.7
	Will	2	677,560	0.3
Confirmed Cases	County	Cases	Population	Incidence per 100,000 population
2009: 5	Cook	1	5,376,000	0.1
	St. Clair	2	256,000	0.8
	Tazewell	1	128,000	0.8
	Williamson	1	61,000	1.6
Confirmed Cases	County	Cases	Population	Incidence per 100,000 population
2008: 20	Boone	2	42,000	4.8
	Cook	9	5,376,000	0.2
	Kane	3	404,000	0.7
Confirmed Cases	County	Cases	Population	Incidence per 100,000 population
2007: 101	Cook	31	5,376,000	0.6
	DuPage	10	904,000	1.1
	Kane	13	404,000	3.2
	Lake	5	644,000	0.8
	McHenry	5	260,000	1.9
	Saline	3	27,000	11.1
	St. Clair	3	256,000	1.2
	Will	3	502,000	0.6
Confirmed Cases	County	Cases	Population	Incidence per 100,000 population
2006: 215	Cook	86	5,376,000	1.6
	DuPage	43	904,000	4.8
	Kane	4	404,000	1.0
	Lake	11	644,000	1.7
	McHenry	6	260,000	2.3
	Will	18	502,000	3.6

Confirmed Cases	County	Cases	Population	Incidence per 100,000 population
2005: 252	Cook	135	5,376,000	2.5
	DuPage	47	904,000	5.2
	Kane	17	404,000	4.2
	Lake	11	644,000	1.7
	Peoria	7	183,000	3.8
	Will	8	502,000	1.6
Confirmed Cases	County	Cases	Population	Incidence per 100,000 population
2004: 60	Cook	23	5,376,000	0.4
	DuPage	5	904,000	0.6
	LaSalle	5	112,000	4.5
	Sangamon	3	189,000	1.6
	St. Clair	3	256,000	1.2
	Will	3	502,000	0.6
Confirmed Cases	County	Cases	Population	Incidence per 100,000 population
2003: 54	Cook	20	5,376,000	0.4
	DuPage	3	904,000	0.3
	Piatt	3	16,000	18.8
	Sangamon	4	189,000	2.1
	Whiteside	3	61,000	4.9
	Will	3	502,000	0.6
Confirmed Cases	County	Cases	Population	Incidence per 100,000 population
2002: 884	Cook	635	5,376,000	11.8
	DuPage	51	904,000	5.6
	Madison	14	259,000	5.4
	Sangamon	13	189,000	6.9
	St. Clair	15	256,000	5.9
	Will	18	502,000	3.6

Acknowledgements

The statewide WNV surveillance and prevention effort described above could not be conducted without the cooperation and assistance of many local and state agencies, including local health departments, mosquito abatement districts, municipal governments, Illinois Department of Agriculture, Illinois Environmental Protection Agency, Illinois Natural History Survey Medical Entomology Laboratory, and University of Illinois Veterinary Diagnostic Laboratory.

