

WNV in Illinois, 2001

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OR How are we going to manage all this dead bird information??



Three State Agencies Involved in WNV Activities in Illinois

- Illinois Department of Agriculture
 - Equine surveillance
 - Dead bird necropsy and testing
- Illinois Department of Natural Resources
 - Field biologists
 - Research
- Illinois Department of Public Health
 - Management of surveillance data

Coordination Between Agencies

- List-server with all three agencies
- Regular meetings with all agencies

Illinois Structure for Surveillance and Control Activities

- 102 counties
- Population 12.5 million
- 94 local health departments
- 21 Mosquito Abatement Districts

Illinois Standard for Arbovirus Surveillance (pre-WNV)

- Wild bird serology
- Human arbovirus surveillance
- Equine encephalitis surveillance

Five-point Plan for WNV Surveillance, 2001

- Dead bird surveillance
- Wild bird surveillance
- Mosquito pools
- Equine encephalitis and WNV surveillance
- Human surveillance

Sources of Data

- USDA horse testing data
- NW MAD mosquito pool data
- IDA dead bird results
- Dead bird submission forms
- USGS lab results



Problems with Data Collection

- Multiple ID numbers
- Multiple sites entering same data in different databases
- Demands for quick turnaround time by local jurisdictions

Dead Bird Surveillance



- Informational memo sent to LHD's and others
 - Criteria for dead bird submission
 - Only blue jays, crows or raptors
 - Freshly dead
 - Dead bird submission form
 - Dead bird shipping and testing information
 - Monetary support-CDC and state



Starling



Grackel



Crow

Dead Bird Issues

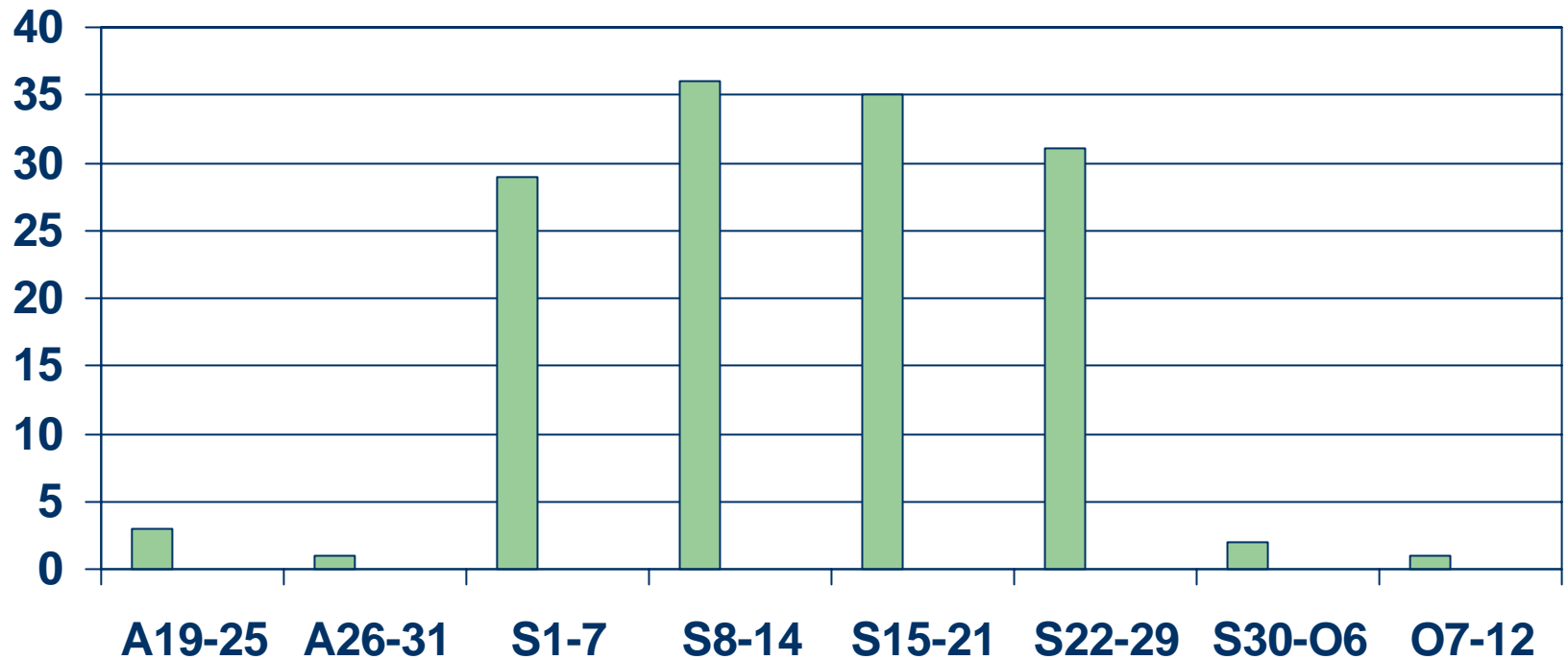


- Caps on number of dead birds per jurisdiction
- Return of Results
 - IDPH Intranet
 - IDPH Web site

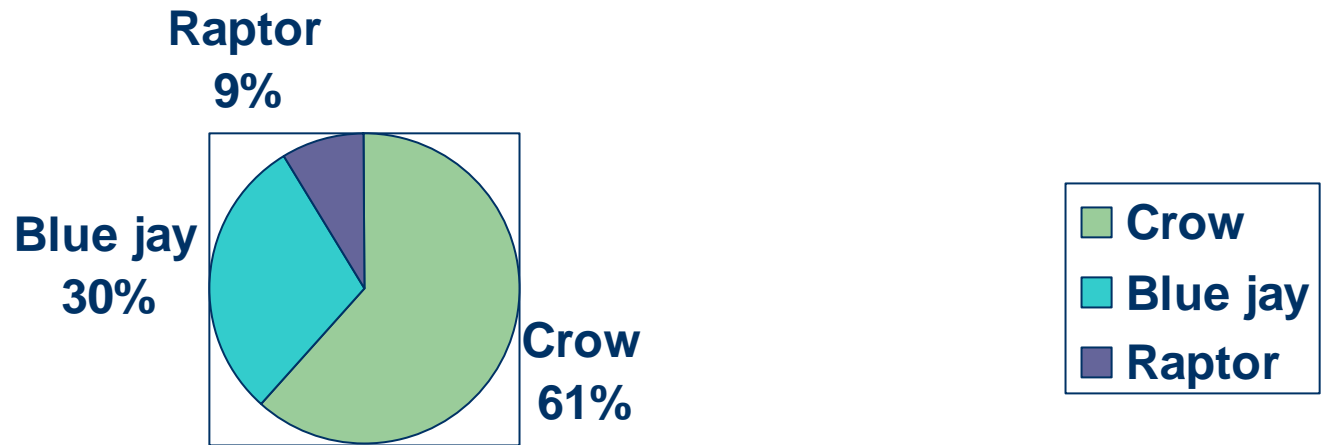
Dead Bird Testing-Results

- 284 dead birds tested for WNV in IL
 - 279 sent for confirmation at USGS lab
 - 57 unsuitable birds submitted (wrong species, decomposed)

WNV Positive Birds by Week in Illinois

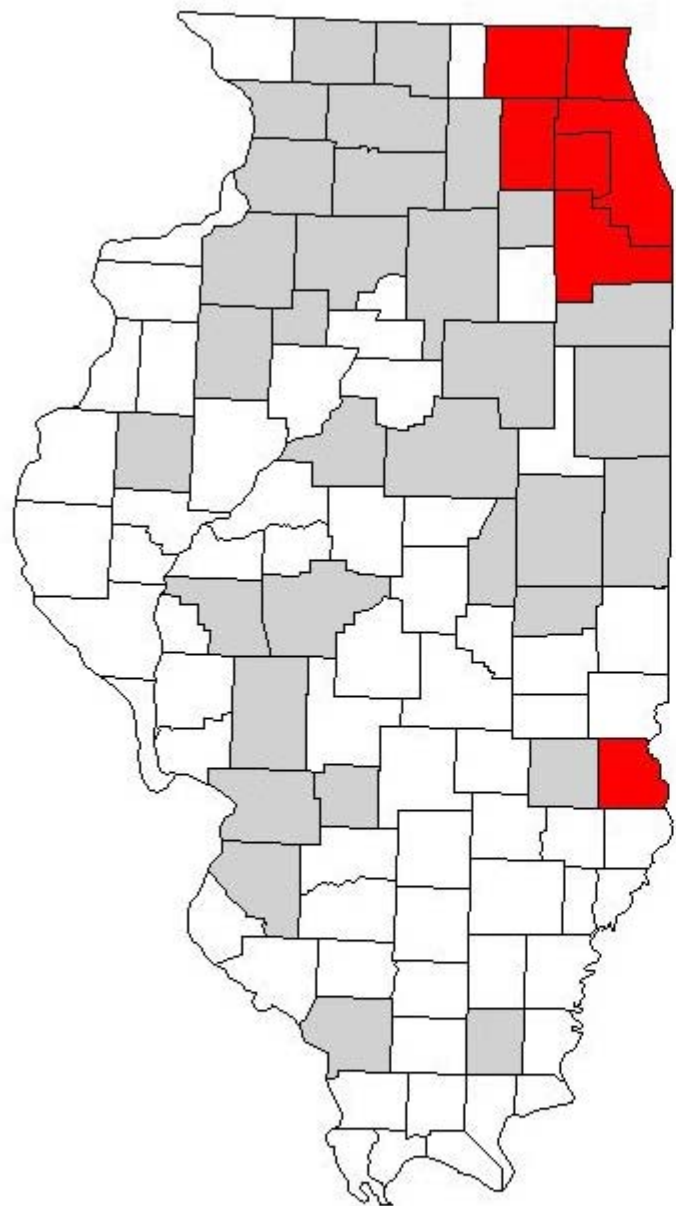


Percent of Birds of Various Types Testing WNV Positive



West Nile Virus (WNV) Tested Birds:

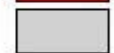
August 19, 2001 - October 13, 2001



WNV



Positive



Negative



70 0 70 140 Kilometers

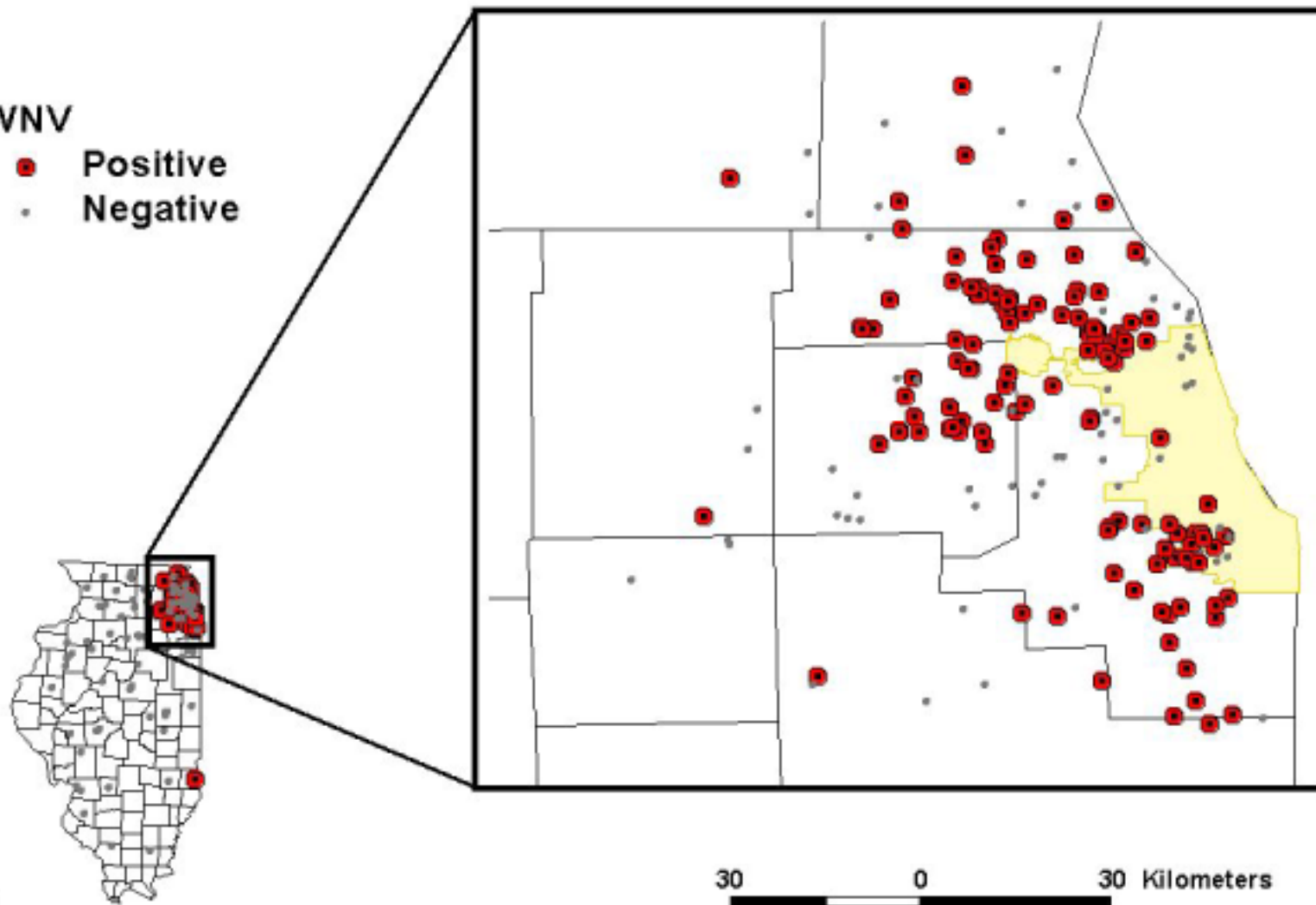


West Nile Virus (WNV) Tested Birds:

August 19, 2001 - October 13, 2001

WNV

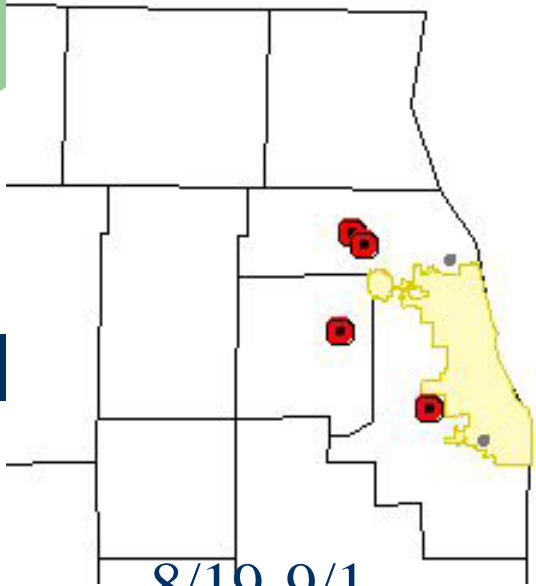
- Positive
- Negative



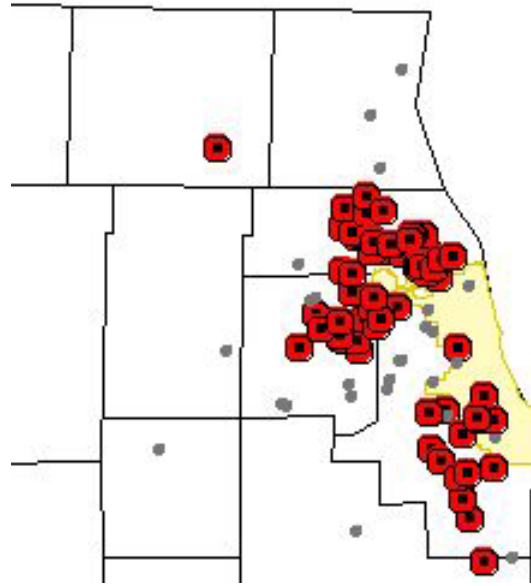
30 0 30 Kilometers



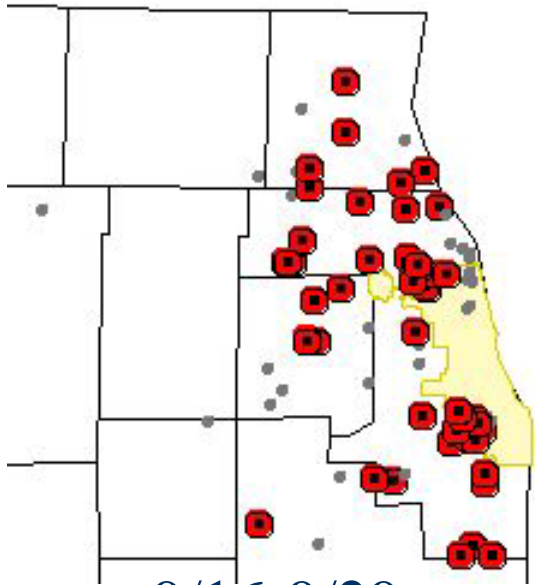
Bi-weekly: August 19, 2001 – October 13, 2001



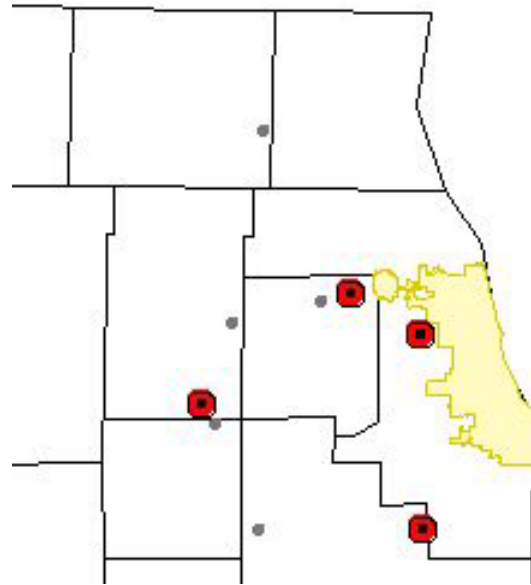
8/19-9/1



9/2-9/15



9/16-9/29



9/30-10/13

Wild Bird Serology

- Collection of small birds across the state
- Collections in areas where dead birds tested positive for WNV
- Tested by IDPH laboratory for IgM ELISA for WNV, EEE and SLE

Wild Bird Serology-Results

- None of 7,796 birds tested were positive
- Wild bird serology using IgM ELISA did not appear to be useful for WNV surveillance in IL

Mosquito pools

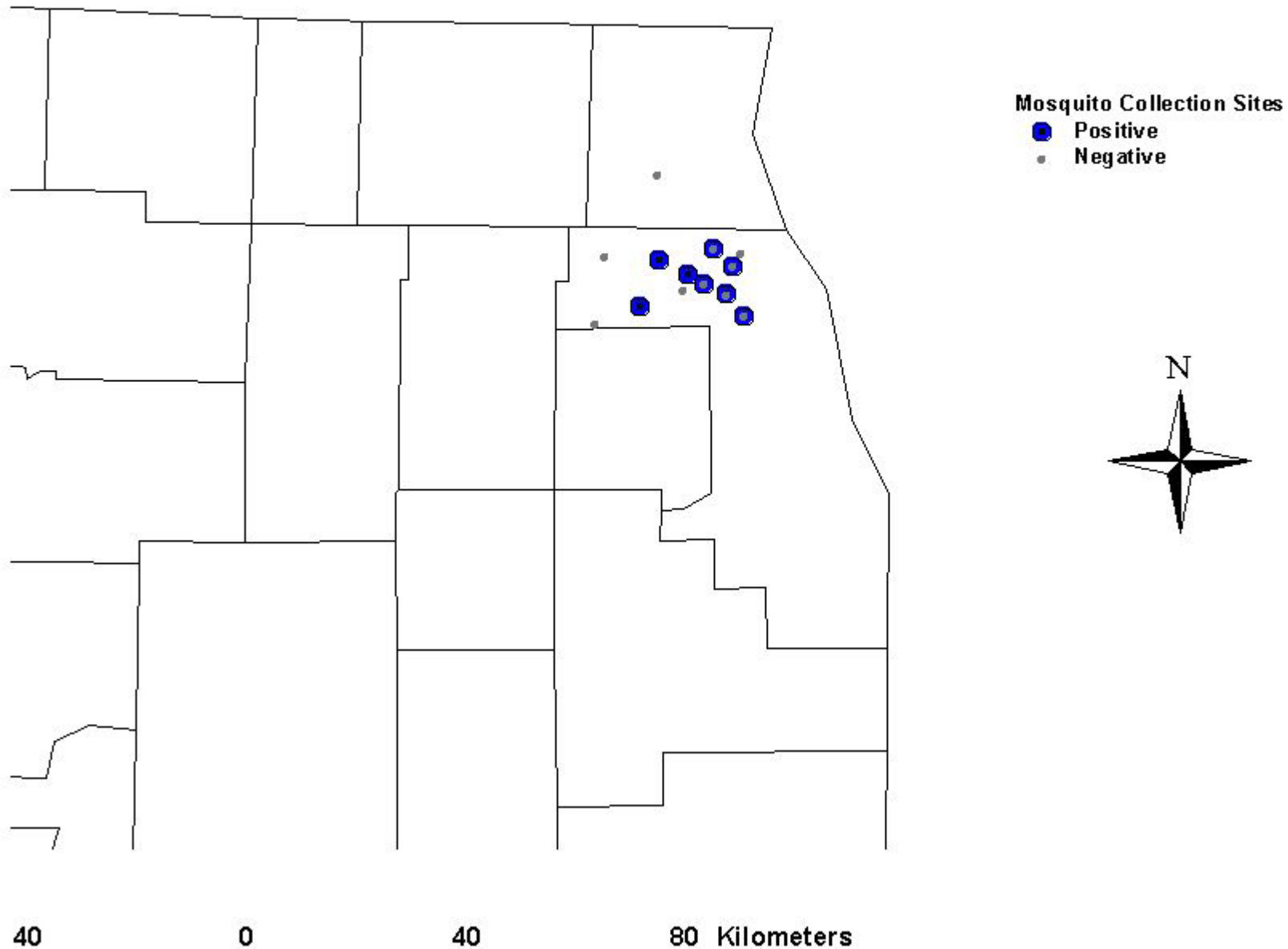
- A mosquito abatement district in Cook County tested mosquito pools for WNV
- A tabletop test, VecTest was used
- Pools were sent for confirmation to CDC

Mosquito pool-Results

- 81 *Culex* pools were collected and tested in Cook County
- 20 tested positive
- Positives were from August 15 through October 12
- Followed closely with dead bird positives in that area

West Nile Virus (WNV) Tested Mosquitoes:

August 2001 - October 2001



Horse Surveillance

- Horses were tested for WNV in Illinois for regulatory/export purposes, due to clinical illness and because of owner concern
- Encephalitis in horses is reportable to the IDA

Horse Testing-results

- 43 horses tested
- 2 of 9 with symptoms were positive
- Cook and Kane county

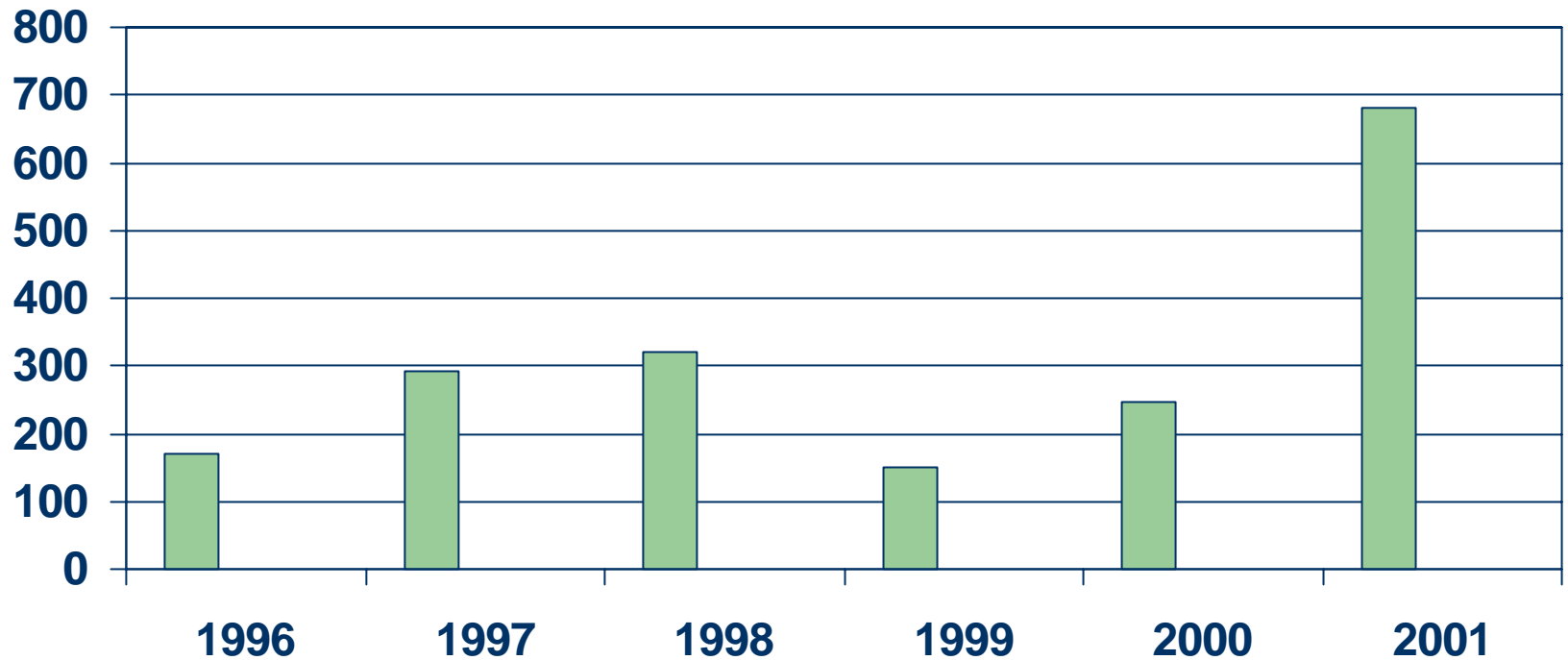
Human Surveillance

- Sera and CSF requested of all aseptic meningitis and encephalitis cases in the state
- Sera and CSF are tested for 4 arboviruses

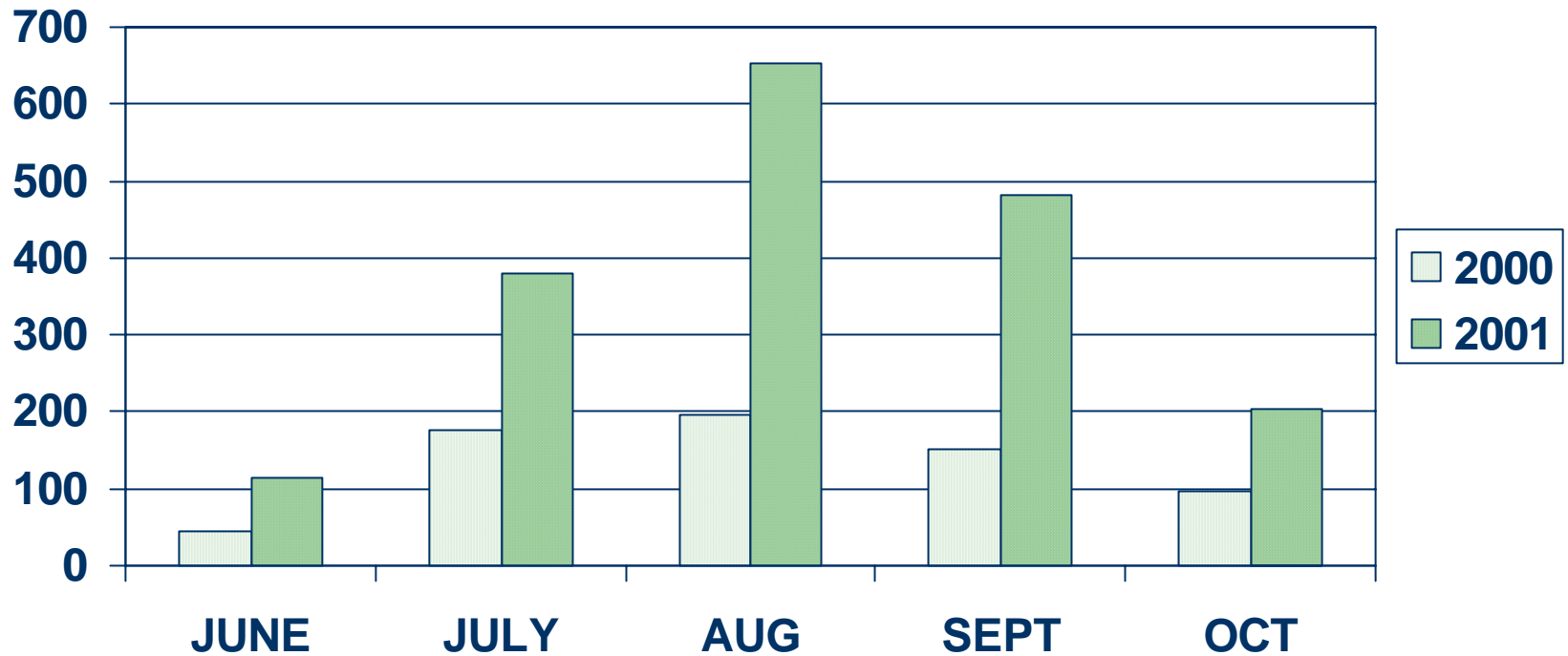
Human Surveillance-Results

- 663 symptomatic people under surveillance were tested for arboviruses
- None tested positive for WNV
- 6 tested positive for LAC

Persons under Surveillance for Arboviruses by Year



Persons Under Surveillance for Arbovirus Infection by Month



Lessons Learned

- Type of Dead Bird Laboratory Testing
- Better Data Management
- Wild Bird Serology
- Mosquito Pools
- Sharing of Information about WNV Positive Horses Between Agencies

Other issues

- Allocation of Dead Bird Testing by Jurisdiction
- Recommendations when human cases occur
- Lab Reagent Availabilities
- Microsoft Access and Mapping Training

Questions?

