

Environmental  
Impact  
Research Group  
(EIRG) 2016

ONE HEALTH

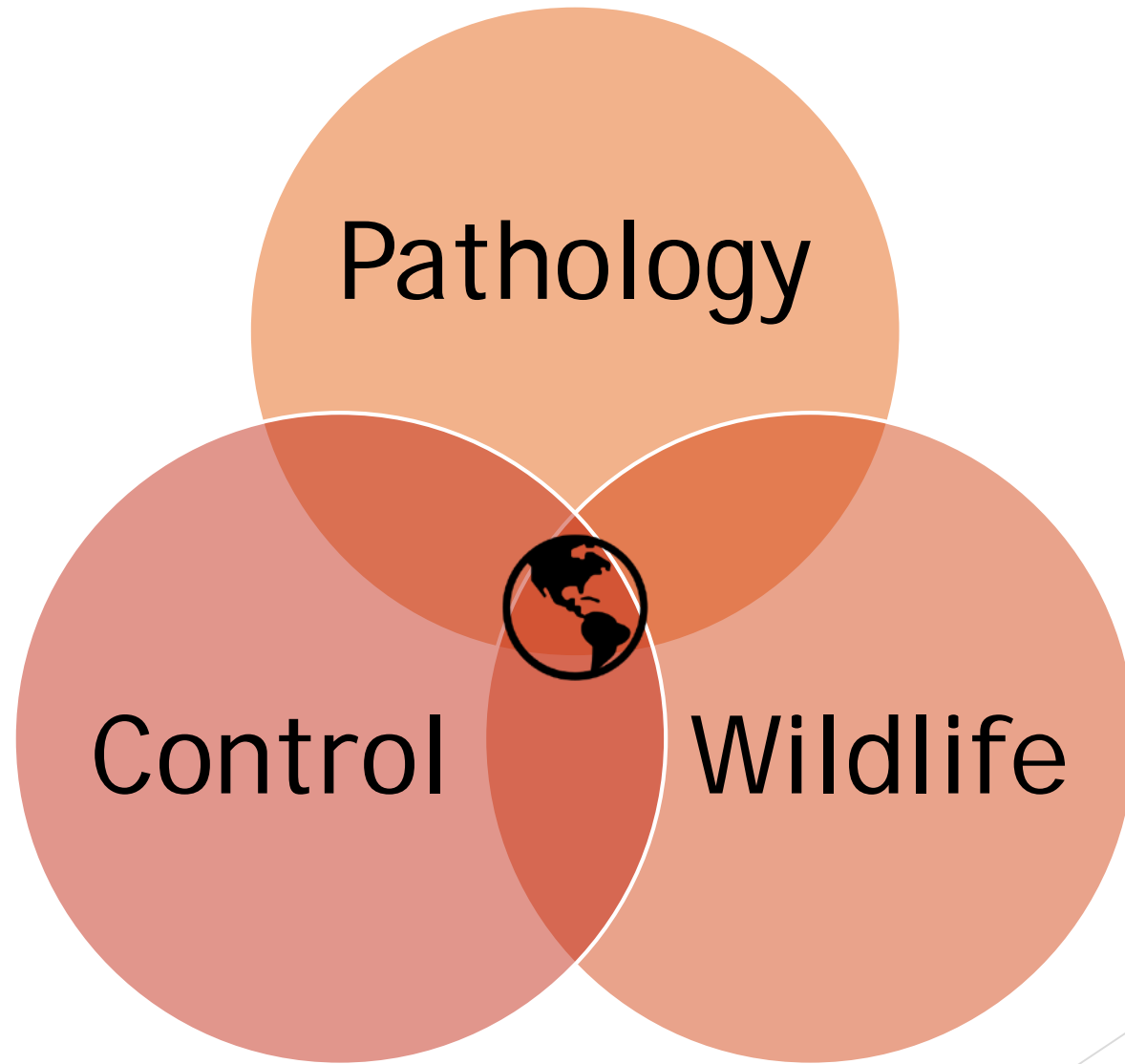


# Environmental Impact Research Group

- ❖ Established in 1991, it is the collaboration of the Cook County Animal and Rabies Control, the Cook County Forest Preserve District, the Brookfield Zoological Society, the Max McGraw Wildlife Foundation and the University of Illinois School of Veterinary Medicine Zoological Pathology Department.
- ❖ The goal of the EIRG is to help ensure the public health of both humans and companion animals through the constant surveillance of zoonotic or infectious diseases that can be derived from wild animals or the interaction of companion and wild animals.



“**One Health** is the integrative effort of multiple disciplines working locally, nationally, and globally to attain optimal health for people, animals, and the environment. Together, the three make up the One Health triad, and the health of each is inextricably connected to the others in the triad. Understanding and addressing the health issues created at this intersection is the foundation for the concept of One Health.” JAVMA



Pathology

Control

Wildlife

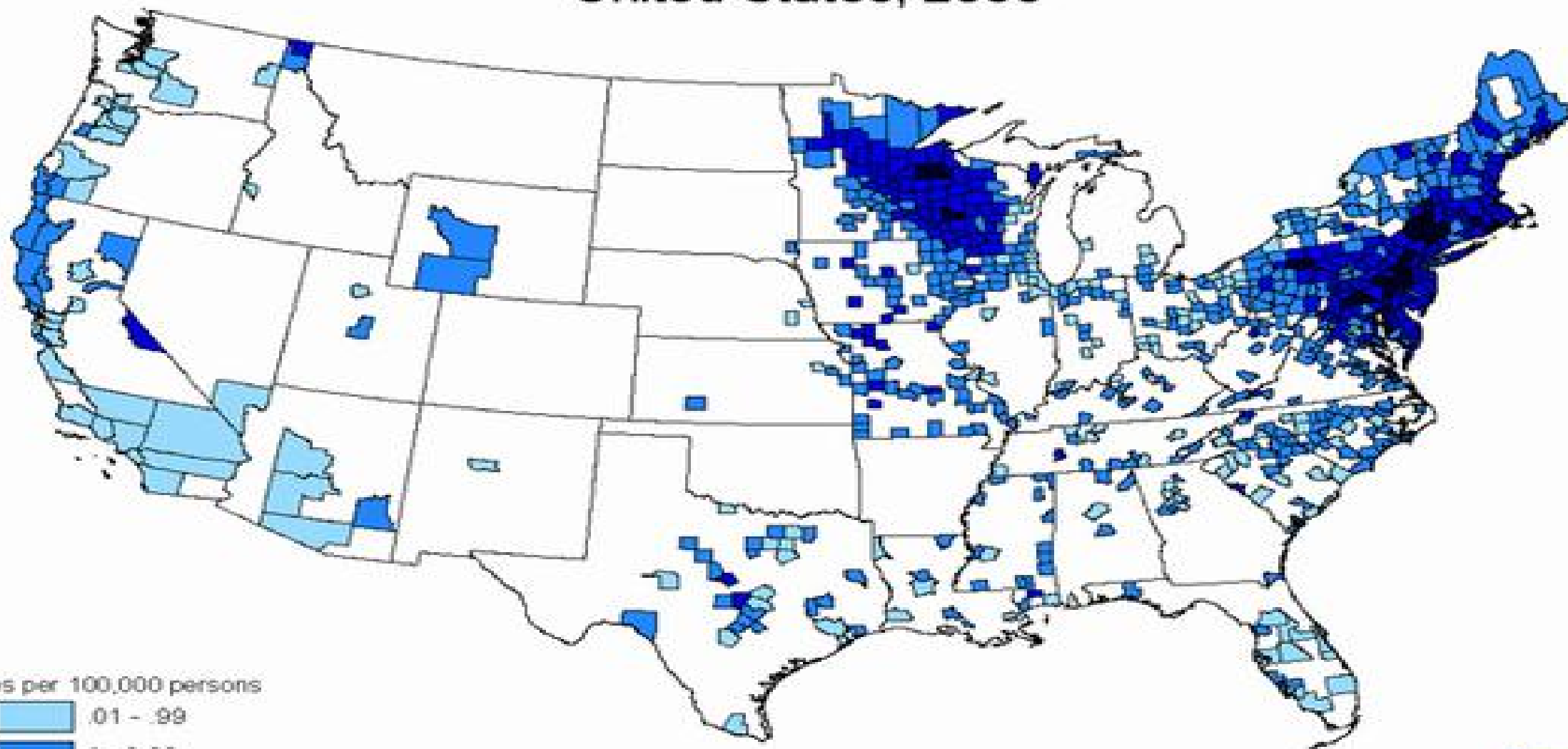


# Emerging and Reemerging infections - 70% vector-borne or zoonotic





## Lyme Disease Incidence by County of Residence United States, 2003



Cases per 100,000 persons



# Chicago Area Leptospirosis Case Map



## Legend

1 case   2 cases   3 cases   4 cases   5 cases   10-20 cases   20-30 cases

# Seoul Hanta Virus 12/16 -1/24/2017

- ▶ CDC is assisting health officials in 12 states in investigating an outbreak of Seoul virus infection that has infected 8 people in Illinois and Wisconsin, after reports of illness in December 2016 in two individuals who operated a home-based rat-breeding facility in Wisconsin. One person was hospitalized. The ill individuals had purchased rats from animal suppliers in Wisconsin and Illinois. Trace-backs to two Illinois ratteries revealed six additional people who tested positive for Seoul virus. All individuals have recovered.
- ▶ Follow-up investigations by CDC and partnering state and local health departments indicate that potentially infected rodents may have been distributed or received in Alabama, Arkansas, Colorado, Illinois, Indiana, Louisiana, Michigan, Minnesota, South Carolina, Tennessee, Utah, and Wisconsin.



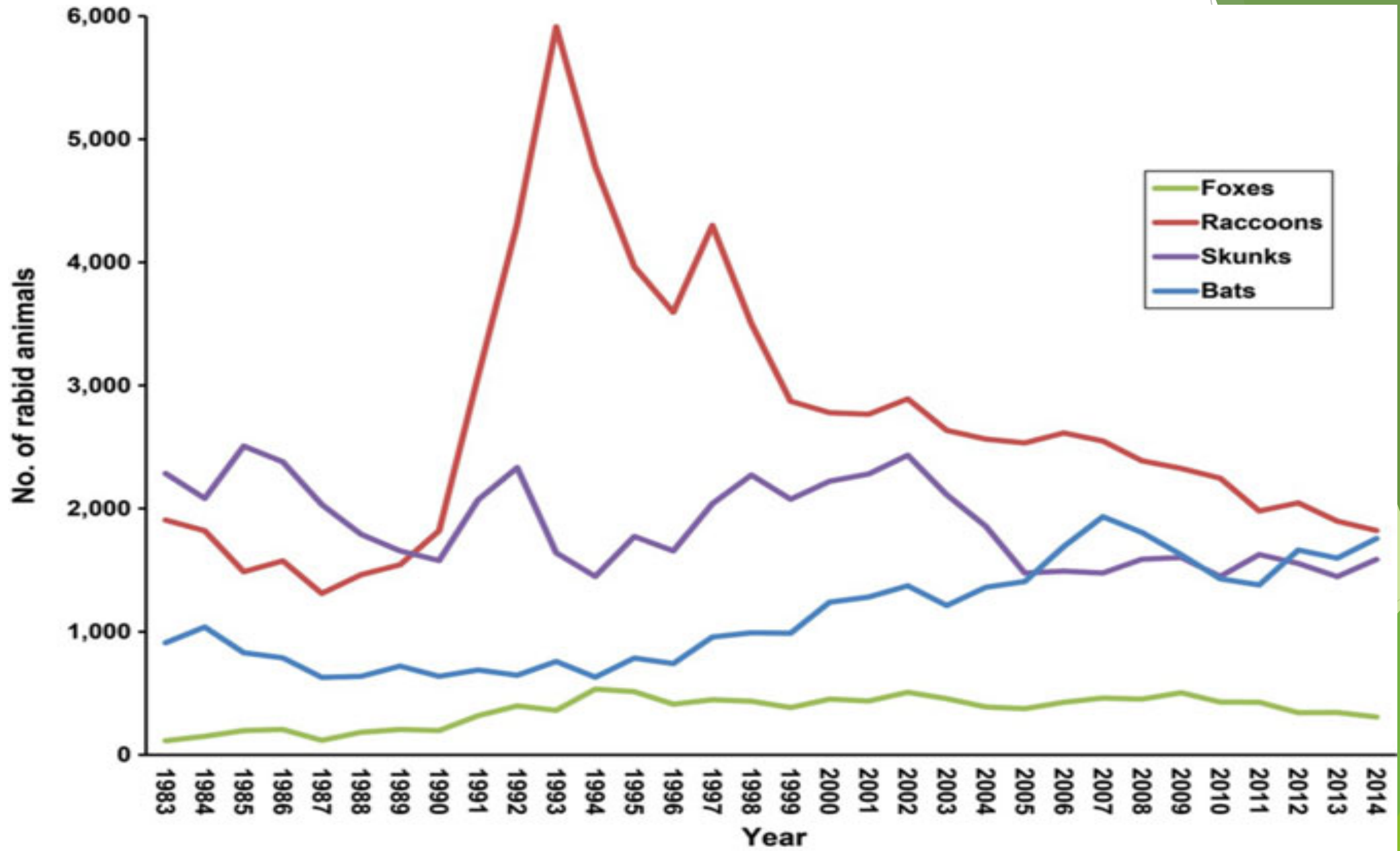


Figure 1—Distribution of major rabies virus variants among nonchiropteran reservoirs in the United States and Puerto Rico, 2008.

# Rabies:

- ▶ Wild animals accounted for 92.6 percent of reported cases of rabies in 2014. Raccoons continued to be the most frequently reported rabid wildlife species (accounting for 30.2 percent of all animal cases during 2014), followed by bats (29.1 percent), skunks (26.3 percent), and foxes (4.1 percent).









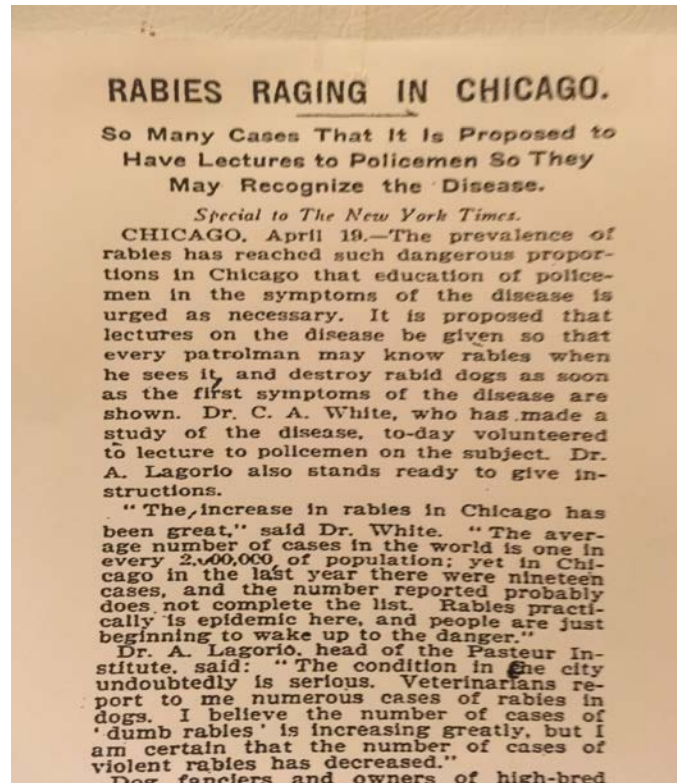


Forty dogs at the Waco Animal Shelter were euthanized by the end of Friday after being exposed to a rabies-infected dog from Lorena, and at least one city official puts the blame on an irresponsible dog owner.

- ▶ WEST PLAINS, Mo. -- The first confirmed case of rabies has been reported to the Howell County Health Department by the Missouri State Public Health Lab in Jefferson City.
- ▶ The case involved a rabid 8 week old puppy near the Moody area, which became ill and died. Howell County Health Department officials say the puppy had exposure to 32 people who have started Post Exposure Prophylactic shots. The puppy's mother, 5 littermates, and 2 other dogs have had to be euthanized due to exposure to a rabid animal, all of which were not current on rabies vaccinations.
- ▶ Justin Frazier, Environmental Public Health Supervisor with the Howell County Health Department said this particular case, and the severity and exposure, are rare, however, the proper actions must be taken quickly following a possible exposure to protect the individual from the rabies virus.
- ▶ To date in 2016, this is the first confirmed cases of rabies in Howell County, as well as the third rabies case statewide. Howell County ended 2015 with a total of 3 positive rabies cases, all involving skunks, with 31 cases reported statewide. In 2014, 5 rabies cases were reported to the Howell County Health Department, all involving skunks. In 2013, Howell County had a total of 4 positive rabies cases, which involved 3 skunks and 1 cat.

# Then and Now

## 1903: NY Times



## 2016: WREX

- ▶ OGLE COUNTY (WREX) -
- ▶ The Ogle County Health Department has been advised by the Illinois Department of Public Health that a cat submitted for testing was tested positive for Rabies.
- ▶ The cat was tested on September 22. The health department says there was one adult exposed to the cat, and the adult is being treated.
- ▶ The source of the infection is not know at this time.
- ▶ The Ogle County Health Department is advising the public not to approach any animal acting sick or strange.
- ▶ OCHD recommends the following precautions to protect yourself and your family from possible exposure to rabies:
- ▶ Report any wildlife acting sick or strangely to local animal control.
- ▶ Vaccinate pets-Illinois law requires rabies vaccinations for all dogs. Rabies vaccinations are available for other types of pets-consult your veterinarian for details.



- 2006 Low Cost Rabies Clinics Initiated
- 2007 Managed Feral Cat Ordinance Passed
- 2008 County Required All Dogs, Cats and Ferrets Be Vaccinated Against Rabies
- 2015 Established VRS

# Low Cost Rabies Clinics

Total Number of Dogs,  
Cats and Ferrets  
Vaccinated:

**40,727**





# Managed Feral Cat Impact from 2008 - 2016

- ▶ Number of Sponsors 6
- ▶ Total # of Registered Colonies 2,381
- ▶ Total # of cats in registered colonies 16,371
- ▶ Total # of cats spayed/neutered 21,312
- ▶ Total # of cats vaccinated 21,538
- ▶ Cats adopted or rehomed 6,410
- ▶ Costs incurred by Humane Society Sponsors
  - > \$2,000,000 Savings to County Municipalities \$1,017,500

# Cat and Ferret Vaccines

2007: 81,054



2015: 92,835

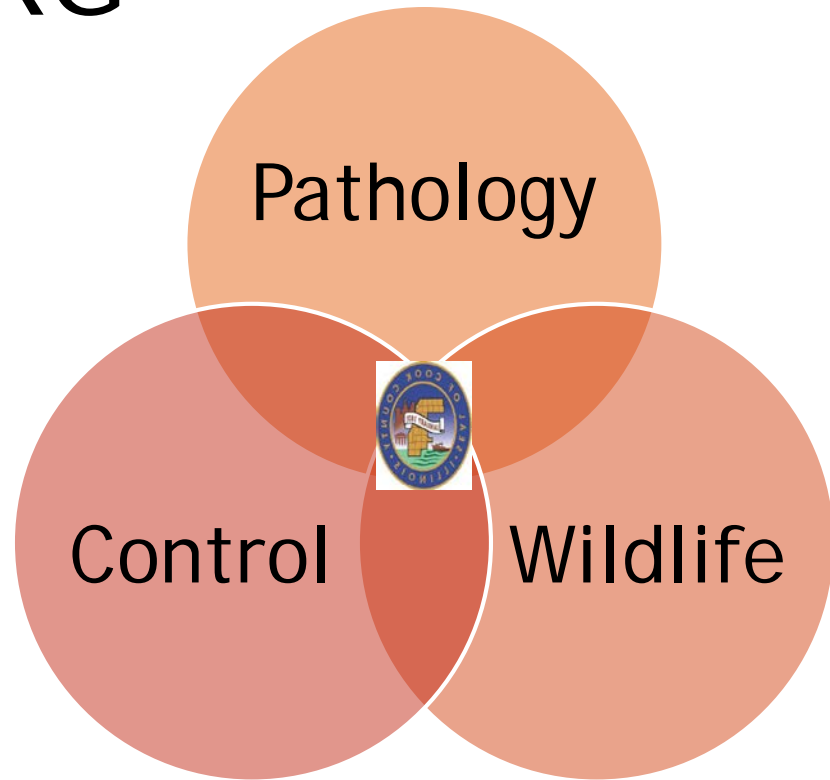


“Organizations that combine strong education programs about rabies combined with animal control and vaccination programs are the first line of defense against this deadly disease. Time and time again our research shows that when education and control programs are weakened by lack of funding, people are more vulnerable to being exposed to rabid animals. Illinois is a rabies endemic state and agencies like Cook County Animal and Rabies Control are essential to maintaining public health.”

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# EIRG



# ONE HEALTH

