



Epidemiologic Notes & Reports

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RABIES IN KENTUCKY Michael Auslander, DVM, MSPH

The Division of Laboratory Services and the Breathitt Veterinary Center received 1431 animal specimens for rabies testing in 1999. There were 80 samples unsuitable for testing because of decomposition or extreme traumatic damage to the brain. There were 35 (2.4%) specimens that tested rabies positive; only 7 (20.0% of positives) cases were in domestic animals and the remaining 28 cases were wildlife. (Table 1.)

Table 1. Animals Submitted for Testing and Number of Positives by Species

SPECIES	NUMBER	% OF	NUMBER	%
Canine	445	31.1	2	0.4
Feline	365	25.5	0	0.0
Bovine	59	4.1	4	6.8
Equine	57	4.0	1	1.8
Other Domestic	23	1.6	0	0.0
Bat	95	6.6	6	6.3
Skunk	52	3.6	21	40.4
Other Wildlife	335	23.4	1*	0.3
Totals	1,431	99.9	35	

* 1 FOX

The annual total of 35 rabies cases is slightly higher than the preceding 5-year mean of 32.4 rabies cases. The statewide distribution pattern of positive rabies cases shown in Table 2 may not be completely representative of rabies activity in the state; but may only reflect the distribution of samples submitted for testing. Almost all the samples submitted were due

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to some form of suspicious interaction between the animal tested and a human or domestic animal. As expected, skunks accounted for the majority of rabies positive animals in Kentucky. Unlike most of the states east of the Appalachian Mountains, Kentucky does not have a raccoon rabies strain epizootic. The laboratories tested 184 raccoons in 1999, and all were negative. However, the Centers for Disease Control and Prevention consider Kentucky at risk for the introduction of the raccoon rabies variant from West Virginia. Multiple federal and state agencies are actively engaged in preventing the spread of raccoon rabies westward from states in which it is already epizootic.

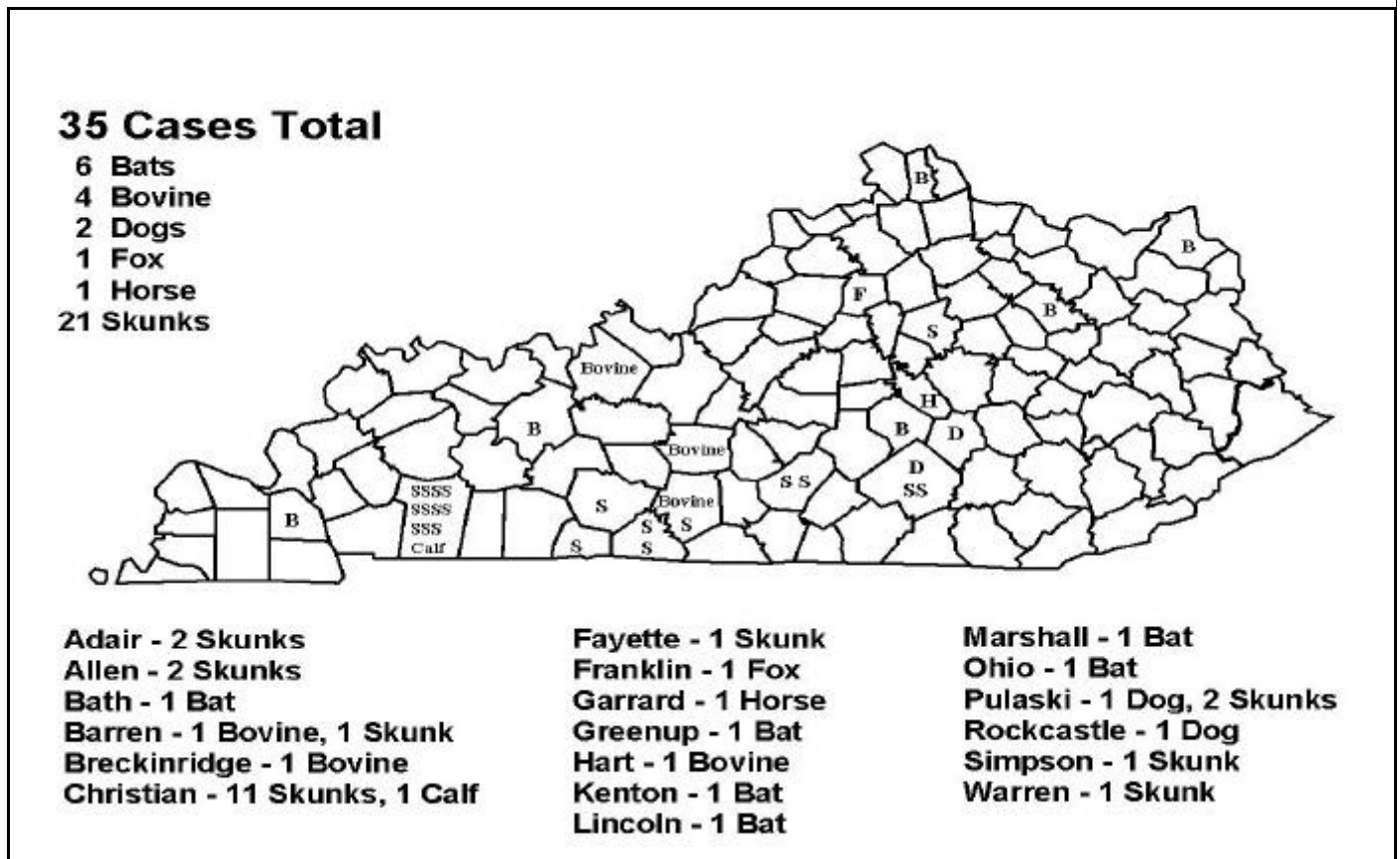
Reporting of Rabies Postexposure Prophylaxis

Beginning June 16, 1997, rabies postexposure prophylaxis (PEP) became a reportable treatment. This new surveillance activity was mandated in order to estimate how many patients in Kentucky receive this expensive treatment. Surveillance of PEP will allow the Department to follow trends in PEP administration, which would reflect any changes in the number of human exposures due to an increase in rabid or suspected rabid animals.

(Continued on page 2)

RABIES IN KENTUCKY, Continued

Table 2. Statewide Distribution of Animals Positive for Rabies, 1999



This may serve as an early warning of any rabies epizootics. It will also allow the Department to estimate the financial burden of this public health intervention. Both private and public reporters can use the standard reportable disease form. There is an area for PEP information on the second side of the form, which is designed to guide the user through questions that may be useful in determining if PEP is indicated.

The above paragraph was published in the May, 1998 and the June, 1999 *Epidemiologic Notes and Reports*. Unfortunately, users of rabies biologics are not adhering to reporting regulations. For 1999, health departments reported 75 PEPs on the required EPID 200 form. A review of 1999 local health department billing information detected administration of PEP to 120 patients. Health departments only submitted about 2/3 of required

reports. There were 21 county or district health departments that reported from 1 to 37 PEPs. There were 24 county or district health departments that failed to report from 1 to 26 PEPs each.

A 1994 survey by the Division of Epidemiology determined that at least as many patients receive PEP from private providers as in health departments. Since only 3 hospitals reported a total of 5 PEPs, and 2 physicians offices reported a total of 4 PEPs, it can be estimated that private providers complied with the PEP reporting law less than 10% of the time.

Rabies PEP should not be administered without careful consideration of the exposure because it is expensive (\$1,000- 6,000/patient), time consuming for the patient and provider, not always pleasant, and not totally without adverse reactions. Additionally, since human rabies immune globulin is

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RABIES IN KENTUCKY, Continued

in short supply with occasional periods of unavailability, it should be reserved for those patients for which there is a true indication for administration. For the 84 patients for which PEP was appropriately reported, only 6 of the patients had any contact with an animal that tested positive for rabies, and only 2 of these exposures involved a bite from a rabid animal. The other 4 PEPs resulted from "possible exposure" to saliva from a horse (2) or exposure to saliva from a cat that fought with a proven rabid skunk (2).

If people that were bitten and medical providers followed the legally mandated protocols of Kentucky Revised Statute 258, many of the PEPs could be avoided. KRS 258.065 requires all medical providers, parents of children bitten, or adults bitten that don't require medical care, to report animal bites to the local health department within 12 hours of the incident. This provides the opportunity for local health department personnel to either quarantine the animal for observation or have it tested for rabies. If the incident is reported after a lengthy time delay, the chances of recovering the animal for testing or observation are remote. Victims of bites can adversely contribute to the outcome of the event by not capturing the animal or by improperly killing the biting animal. (The brain must remain intact for testing; gunshot to the head or clubbing are not acceptable methods.) In most cases the animal is either killed and disposed of before testing is available, or allowed to escape and not captured for observation or testing. Domestic animals can be quarantined and observed for signs of rabies and 49 (58.3%) of the 84 PEP incidents involved dogs, cats, ferrets or a horse. Only 5 animals were captured out of the 35 wildlife species incidents. In only 18 (21.4%) of the 84 reported PEP incidents was an animal available for observation or testing; 6 specimens tested positive for rabies, 1 animal was not killed because it was a valuable zoological specimen, and the other 11 animals were too decomposed for testing or escaped quarantine.

In the 1994 survey of PEP administered by health

departments, only 2 of the patients were found to have a bite exposure to a proven rabid animal. Unfortunately, the 1999 PEP reports also found exactly 2 patients with bite exposure to a proven rabid animal. It appears that no progress toward improving patient selection for PEP has been made in the last 5 years even though health departments administered PEP more frequently than in 1994 (120 vs. 97).

For more information on rabies or reporting of PEP, you may call the Division of Epidemiology and Health Planning at (502)564-3418 or toll free at (888) 9-REPORT.

RABIES REMINDER TO VETERINARIANS AND ENVIRONMENTALISTS!!



Just a *howling* reminder to make sure rabies specimens are properly submitted. **Do not ship by bus** to either the Frankfort or Hopkinsville laboratories. Ship preferably by U.S. Postal Service, "Overnight Express" to assure next day delivery. **Do not ship** on Friday or prior to a Holiday unless you have guaranteed next day delivery. If a human exposure case occurs near a weekend or holiday, we advise "hand" delivery of the specimen to the laboratory. Use only the container provided by the Rabies laboratory and follow the shipping instructions fully. Notify the Rabies laboratory at (502) 564-4446 prior to shipping critical specimens.

OOPS, WE GOOFED!



In the May 2000, Volume 35, Number 5 edition of *Kentucky Epidemiological Notes & Reports* article on Health Kentuckians 2010 Improvement Opportunities, the phone number listed to request copies of the report was incorrect. To request copies of this report please call the Division of Epidemiology and Health Planning at (502) 564-3418.

“EPI” Rapid Response Team Training
Peggy Dixon, RN, CIC

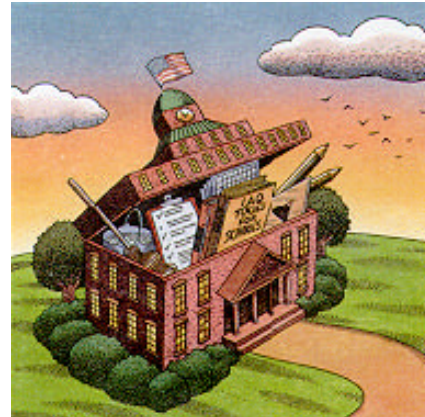
On March 21, 22 and 23, 2000 a training session was provided by the Division of Epidemiology and Health Planning staff for new members joining the “Epi” Rapid Response Team. Twenty-one state and local health department employees attended the three-day session. New members were reminded of requirements and expectations for team membership, and were provided with reference materials, which included information on reporting regulations, antimicrobial resistant organisms guidelines, and program contact persons for TB, Immunizations, Sexually Transmitted Diseases and HIV/AIDS.

The session was held at the Governor's Office of Technology Training (GOT) in Frankfort, , where state of the art computers were accessible for learning the two computer programs useful in dealing with outbreaks of communicable diseases. Other topics were chosen to reinforce the steps of outbreak investigation and written report preparation. Introductory courses were provided in disease etiology, infection control, employee health, and bioterrorism. Additional presentations provided identification, modes of transmission, prevention, control and follow-up of childhood vaccine-preventable diseases, international travel, enteric, vectorborne, rabies and non-vaccine preventable diseases in the day care setting.

Following the course, participants were awarded with attendance certificates. Nurses and sanitarians were also awarded 18.75 classroom hours to meet continuing education requirements.

Every district health department and independent local health department is encouraged to designate staff for training for the purpose of having experienced staff available for investigation, follow-up and control of communicable diseases. Presently, there are only ten independent local health departments and one two-county district health department with undesignated member coverage. The number of “Epi” Rapid Response Team members now stands at 98!

Indoor Air Quality Training EPA's Indoor Air Quality Tools for Schools



Kentucky Dam Village State Park
September 18, 2000

Lake Cumberland State Park
December 11, 2000

Sponsored by:
 Lexington-Fayette County Health Dept.
 And
 Kentucky Public Health Association
 (KPHA)

EPA funded through grants provided by:

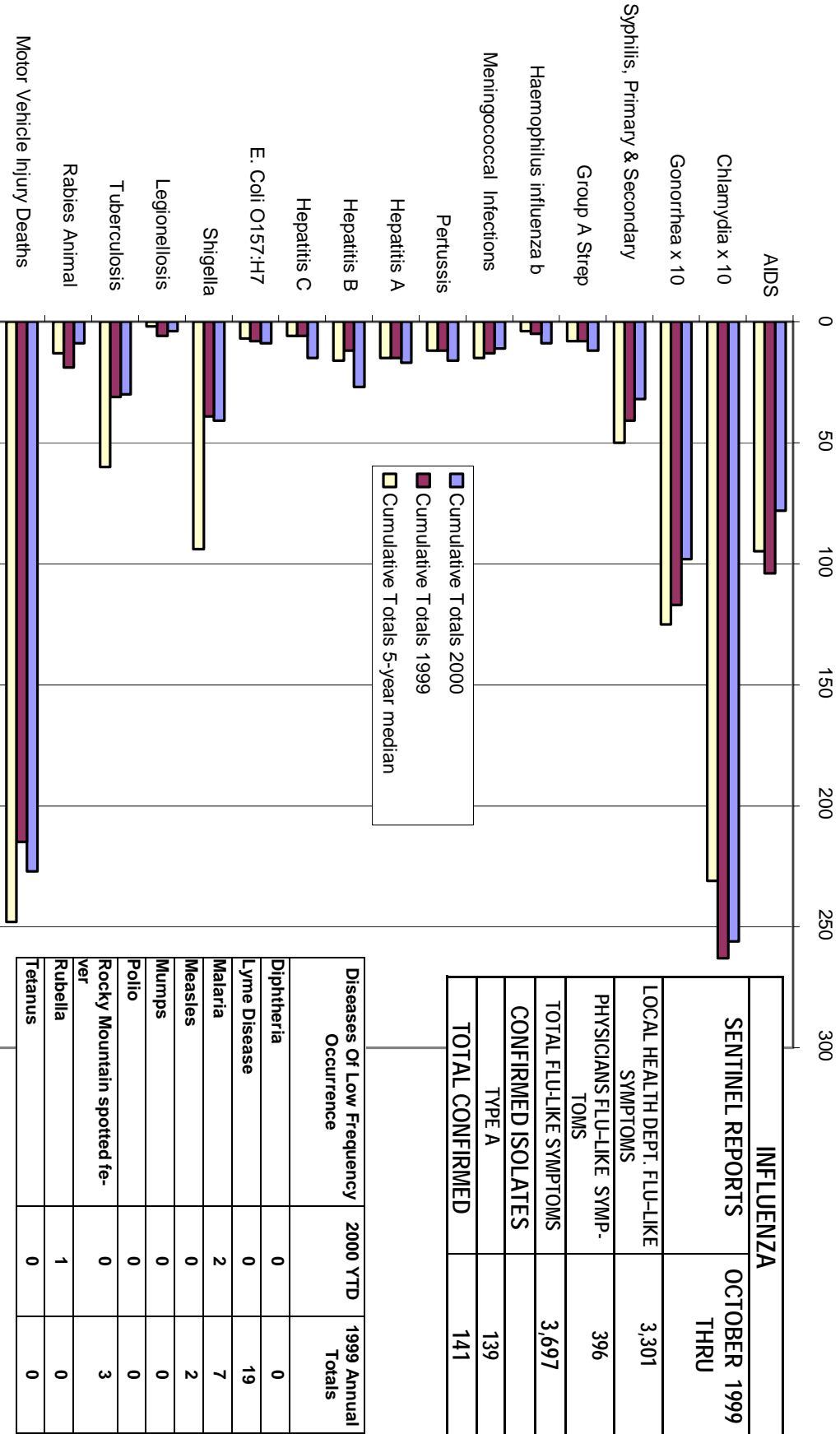
National Association of Counties (NACo)
 National Association of County and City
 Health Officials (NACCHO)

Cost is \$35 which includes:

Resource Binder
EPA IAQ-TFS Kit
 and
Lunch

For more information contact:
 Cary Nesselrode (502) 564-7818, ext. 3731 or
 Vonja Grabeel (606) 231-9791

**CASES OF SELECTED REPORTABLE DISEASES IN KENTUCKY, YEAR TO DATE (YTD)
THROUGH APRIL 2000**



Disease numbers reflect only those cases which meet the CDC surveillance definition. Contributed by: Patricia Beeler, Surveillance and Health Data Branch.



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RETURN SERVICE REQUESTED



Remember: Inactivated Polio Vaccine Use

On January 1, 2000, an all Inactivated Polio Vaccine (IPV) schedule was instituted in accordance with the Advisory Committee on Immunization Practices' (ACIP) recommendations. Oral Polio Vaccine (OPV) that remains in provider's inventories, if not outdated, may be used to vaccinate persons who meet the following criteria:

1. Children in need of a third or fourth dose of polio vaccine whose parents/guardians refuse IPV;
2. Unimmunized children traveling to polio-endemic areas (i.e., within 4 weeks of travel); and
3. Populations targeted as part of a mass immunization campaign to control an outbreak of wild-type poliovirus.

Wyeth-Ayerst has ceased production of OPV and there will be no future contracts available for this product. CDC is planning to establish an OPV stockpile contract, but it will not be available for use by the states, except in the unlikely event of an outbreak.

If you have any questions about the all IPV schedule, please contact the Immunization Program:
(502) 564-4478.