

## Memorandum

To: Files  
From: John Pape, Communicable Disease Epidemiology  
      Jamie Brandt, Intern  
Date: February 10, 1999  
Re: 1998 Plague Summary

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For the fifth straight year plague activity throughout Colorado and the western U.S. has remained at low levels. Plague positive specimens were reported from 19 of the 36 counties that submitted samples. The number of counties reporting a plague positive specimen increased from 1997 due to the collection of coyote serum specimens by the USDA/Wildlife Services. Colorado reported one case of human plague.

The number of specimens submitted for testing (n=408) decreased from the previous year; 66 (16%) were positive. This included 16 (11%) of the 145 rodents and rabbits tested, 21 (18%) of the 117 collected flea pools, 4 (9%) of 45 cats and 25 (25%) of the 101 other specimens (positives all coyotes). Fourteen of the positive rodent specimens were from El Paso county where the epizootic in tree squirrels (*Sciurus niger*) continued. However, the epizootic which began in the fall of 1995, appeared to be ending. Larimer County submitted 27 flea pools, 12 (44%) of which were plague positive. These were primarily associated with prairie dog die-offs south of Fort Collins.

After a couple years absence, surveys of coyotes for plague antibody was restarted in a cooperative venture with the USDA and CDC. This surveillance approach does not permit pinpointing an exact location of a plague die-offs due to the wide home range of coyotes. However, it can be used to demonstrate plague activity occurring in a particular region of the state that may require increased surveillance. It also provides surveillance in rural areas of the state from which few rodent samples are ever submitted. In 1998, 67 coyotes from 15 counties were submitted. Twenty-five (37%) were antibody positive.

Colorado's lone human plague case was reported on June 17 by Mercy Medical Center in Durango. The patient, a 39 year-old woman from Archuleta County, reported symptoms of vague aching and throbbing in her left arm and axillary region on June 10. Over the next few days the pain worsened and she developed fever (103(F), chills, nausea, vomiting, headache, and delirium. The patient was hospitalized June 14 due to the severe pain and cellulitis in her left arm that had rapidly spread to the left chest, back and neck. On June 15 the patient was transferred to St. Anthony Hospital with a tentative diagnosis of group A streptococcus cellulitis/fasciitis. Subsequently, *Yersenia pestis*, was isolated from blood cultures obtained before her transfer. The patient recovered. Prior to her onset the patient had been caring for her ill cat that included cleaning a draining abscess on its head. The cat died June 12. The veterinarian considered plague but felt it less likely than a bite wound due to the location of the abscess. The carcass was plague positive.