Committee on Resources
Subcommittee on National Parks and Public Lands

Testimony

TESTIMONY

BY

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HANTAVIRUS IN CHANNEL ISLANDS NATIONAL PARK

Background

General

Hantavirus pulmonary syndrome (HPS) is a severe and potentially fatal respiratory disease caused by the Sin Nombre virus (SNV). Persons are infected through contact with excreta shed by infected deermice (*Peromyscus maniculatus*). HPS was first recognized in an outbreak that occurred in the Four Corners area in 1993. To date, 217 cases of HPS have been identified in the United States, with a case-fatality of 43 percent.

California

As of June 1999, 21 cases of HPS have been identified in California residents, of whom 18 are believed to have been infected within California. Ten of the 21 California cases were fatal. The majority of cases occurred east of the Sierra Nevada range. The California Department of Health Services (DHS) has records of over 9,000 animals tested for evidence of SNV infection. Seropositive deermice have been identified in 41 of 51 counties from which deermice have been sampled. The seroprevalence in deermice averages 12.6 percent statewide.

Channel Islands National Park

The DHS conducted hantavirus rodent surveillance on the Channel Islands in 1994. Seropositive deermice

were identified on five of eight islands surveyed: San Clemente (3%), San Miguel (18%), Santa Catalina (14%), Santa Cruz (71%), and Santa Rosa (58%). A follow-up rodent survey was conducted by researchers from the U.S. Geologic Survey and University of California, Davis, on three islands in 1995-96: San Miguel (18%), Santa Cruz (0%), Santa Rosa (16%). Blood tests were conducted on Park employees and residents of mouse-infested cabins on the Island: none had antibody evidence of exposure to SNV. To date there has been no documented case of HPS among persons working on or visiting the Channel Islands.

Recent developments

On February 14, 1999, the Los Angeles Times printed an article on hantavirus in the Channel Islands, citing some of the surveillance data from the 1994 study described above. (The 1994 and 1995-96 studies were both published in the Emerging Infectious Disease journal in 1997.) On February 24, DHS staff met with Park employees to discuss hantavirus risk reduction for employees and visitors. On March 23, Dr. James Stratton, Deputy Director of Prevention Services, DHS, sent a letter to John Reynolds, Regional Director of the National Park Service (NPS), that outlined specific recommendations for educating Park employees and visitors about hantavirus and appropriate prevention measures. These recommendations included distributing information pamphlets to visitors, posting public notices at frequented areas, and sponsoring regular safety training for NPS staff and other island residents. Public interest and concern about risk of hantavirus in the Channel Islands was renewed in June 1999 when the Los Angeles Times reported on a seven-year-old resident of Ventura County who had contact with a deermouse on Santa Rosa Island; the mouse was subsequently determined to have antibody to SNV. This incident was the basis for U.S. Congress Representative Elton Gallegly (R--Simi Valley) to recommend during a June 8 press conference that the Channel Islands be immediately closed "until federal land managers devise better methods to notify the public of the risk". DHS subsequently convened a teleconference of representatives from DHS, NPS, the Centers for Disease Control and Prevention (CDC), and the health departments of Santa Barbara and Ventura Counties, to discuss whether Park closure was an appropriate action and what additional measures, if any, should be considered to protect the public health.

DHS is aware that the NPS currently provides hantavirus information to visitors in all responses to requests for mailed information about the Channel Islands, at visitor orientation meetings, through the National Campground Reservation Service, at the Island visitors' centers, and on their Web site. The NPS has obtained consultation on rodent-proofing staff buildings and provides kits of information/supplies for occupants of these residences. The NPS conducts regular monitoring of rodent population densities on the Channel Islands.

Conclusions and Recommendations

1. The risk of hantavirus infection for the majority of visitors to the Islands who engage in typical outdoor activities (e.g., hiking, picnicking, camping) is low.

2. Health departments from counties nearest the Islands (i.e., Ventura, Santa Barbara, Los Angeles) may wish to consider a press release each summer on hantavirus to further inform local residents who may visit the Islands.

3. The DHS encourages NPS to explore other avenues for disseminating hantavirus information to visitors who may not be reached through standard means, e.g., individuals who take their private boats to the Islands.

4. Real or perceived risk of hantavirus has not been the basis for restriction of access to any public lands in the United States.

5. DHS believes that the NPS' efforts to educate staff and visitors are appropriate.

6. The NPS may wish to consider establishing an on-going collaborative relationship with the DHS to provide consultation, staff resources, and laboratory support for surveillance of hantavirus and other vector-borne infectious diseases on the Channel Islands and in other NPS lands in California. DHS currently performs such services in National Forests in California through a cost-share agreement with the U.S. Forest Service.

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