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El Niño Increases Hantavirus Infections

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Hantavirus pulmonary syndrome (HPS) is a severe cardiopulmonary illness resulting in death in approximately 45% of reported cases. The most frequent recognized etiologic agent of HPS in North America, Sin Nombre virus (SNV), is transmitted to humans from its primary rodent reservoir, *Peromyscus maniculatus* (deer mouse), by direct contact with infected rodents, rodent droppings, or nests, or through inhalation of aerosolized virus particles from mouse urine and feces. The potential for spread from rodents to humans has increased in 1998 because of increased rodent population densities in some regions of the United States, following El Niño-associated increased winter rainfall that improved rodent food supplies.

Prolonged El Niño events preceded the first known HPS epidemic in 1993. The CDC recently reported three cases of HPS that occurred in the southwest United States associated with substantial domestic rodent infestations.

Limiting exposure to rodents and their excreta is the most effective means of decreasing the risk for HPS. Measures to decrease such exposures include eliminating food sources available to rodents in structures used by humans, limiting possible nesting sites, sealing holes and other possible entrances for rodents, and using traps and rodenticides. Other methods include using a 10% bleach solution to disinfect dead rodents and wearing rubber gloves before handling trapped or dead rodents. Gloves and traps should be disinfected after use. Before entering areas that have potential rodent infestations, doors and windows should be opened to ventilate the enclosure, and stirring up or breathing potentially contaminated dust should be avoided. Dusty or dirty areas or articles should be moistened with 10% bleach solution or other disinfectant solution before being cleaned; brooms or vacuum cleaners should not be used to clean rodent-infested areas. Decreasing the number of rodents inside and around human dwellings remains the most effective measure to prevent peridomestic hantavirus infection.

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