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Blood from Yosemite workers could advance research

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(AP)—Health officials are set to draw blood from hundreds of Yosemite National Park employees as part of a research project that aims to help scientists better understand a potentially deadly virus carried by deer mice that killed three park visitors and sickened six others this summer.

More than 300 year-round employees will provide blood and answer an extensive questionnaire, as park epidemiologists and doctors with the California Department of Public Health try to determine how many workers might have been exposed to hantavirus pulmonary syndrome over the years, and why some people get sick and others don't.

Despite living and working in the same environment as the tourists who fell ill, no park employees were among those sickened by the virus that kills one-third of those infected.

"This disease hasn't been around for a long time, and there's a lot we don't know about it," said Barbara Maternal, chief of the occupational health branch of the health department.

Meanwhile, federal epidemiologists are still amassing data as they try to decipher what caused the most concentrated outbreak of the disease recorded since its first detection nearly two decades ago.

All of the tourists who fell ill stayed in the "Signature" tent cabins in Yosemite's family friendly Curry Village lodging area. Investigators later determined that deer mice, the most common carrier of the illness, were

nesting inside the insulated, double walls of the new tents and likely were drawn by food guests brought with them.

Deer mice that live in areas with natural predators rarely carry the virus, said Danielle Buttke, a veterinary epidemiologist with the National Park Service. The infection rate for mice trapped in and around Yosemite Valley, where most of the park's 4 million annual visitors spend time, has been about 14 percent, which is the California average.

The virus is transmitted on airborne particles of mouse urine and feces, but researchers say little else is known about it.

The park has initiated an aggressive trapping program as researchers try to determine whether human intervention can mimic the results shown by natural predation.

"We need to do further research to see if we can influence that," Buttke said.

People can be exposed to the virus and have detectible antibodies in the bloodstream without developing its flu-like symptoms. Likewise, people with mild cases could have been misdiagnosed or not sought medical attention at all.

Many of the employees who volunteered for testing are year-round are scientists, researchers and rangers eager to advance the science.

Park officials say they will also be able to determine how well an employee hantavirus prevention training program has worked. Lengthy questionnaires will assess behavior that might have contributed to or prevented exposure.

"It's such a great opportunity because we have a unique and interested

populace to help us learn what exposures are occurring," Buttke said. "We want to learn to better prevent hantavirus infection in the future."