

Rocky Mountain Spotted Fever

2005 Case Total 206
2004 Case Total 190

2005 Rate 6.0 per 100,000
2004 Rate 5.5 per 100,000

The incidence of Rocky Mountain spotted fever (RMSF) continued to increase in 2005, as it has in the previous four years. Two hundred six cases of RMSF were reported to the OSDH-CDD, an incidence rate of 6.0 per 100,000 population. This is an increase of 8% compared to 2004 (N = 190). The continued annual increase in the incidence of RMSF reported in Oklahoma is not fully understood. Several factors may have attributed to the continued increase including a heightened awareness of tickborne illness among physicians in Oklahoma resulting in increased testing, enhanced surveillance efforts, and an actual increase in the incidence of the disease.

The counties with the highest incidence rates of RMSF were Latimer with a rate of 37.4 per 100,000 (N = 4), Pushmataha with a rate of 34.3 per 100,000 (N = 4), Adair with a rate of 33.3 per 100,000 (N = 7), and Cherokee with a rate of 30.6 per 100,000 (N = 13). The highest number of cases reported from any county was 22 in Oklahoma County, followed by 13 cases reported from Cherokee County, and 12 cases from Le Flore and Pittsburg counties. The incidence of RMSF is typically higher in the eastern half of the state, which is consistent with the geographic distribution of the American dog tick, the primary tick vector of RMSF.

The age of RMSF cases ranged from 1 to 85 years with a median age of 38 years. The age groups with the highest incidence rates were adults aged 70-79 years (7.2 per 100,000) and 50-59 years (7.0 per 100,000 population). One hundred twenty-two cases (59%) were male and 84 (41%) were female. Racial background was provided by 191 of 206 (93%) cases. One hundred seven cases (56%) reported their racial background as white, 77 cases (37%) were Native American, five cases (2%) were black, and two cases (1%) were Asian. Race-specific population rates revealed Native Americans (28.2 per 100,000 population) had a RMSF rate 7-times greater than whites (4.1 per 100,000 population).

Eighty-nine percent of cases reported an onset of symptoms during the months of April through September. The most common symptoms reported were fever (98%), headache (69%), muscle aches (60%), and rash (37%). Twenty percent of cases were hospitalized and no deaths were reported. Exposure information was available for 164 (80%) of cases. A total of 90 (56%) of the cases reported a tick attached to their skin during the two weeks prior to symptom onset, and 104 (63%) reported being exposed to a wooded or tick-infested area during the month prior to symptom onset. Diagnosis of RMSF is confirmed by noting a four-fold rise in antibody titers to specific antigens in acute and convalescent sera drawn at least four weeks apart. A single specimen is generally not diagnostic of acute infection since it may indicate past exposure. Treatment for RMSF (usually doxycycline) is effective at reducing the severity of the disease and should be started without delay when RMSF is suspected.

