

Salmonellosis

2006 Case Total 605
2005 Case Total 448

2006 Rate 17.5 per 100,000
2005 Rate 13.0 per 100,000

The incidence rate of *Salmonella* cases increased from 13 cases per 100,000 to 17.5 cases per 100,000 representing a 36% increase between 2005 and 2006. The rates for Oklahoma have been quite similar to the national rates for the past 10-years without much fluctuation (refer to graph). In 2006, cases were reported from 65 counties in Oklahoma. The highest rates were reported from Roger Mills (116 per 100,000), followed by Pushmataha (77 per 100,000), Coal (49.7 cases per 100,000), Jefferson and Stephens (44 per 100,000) as well as Garvin County (40 per 100,000). No geographic clustering was noted.

Salmonellosis is a reportable disease in Oklahoma and all clinical isolates are required to be sent to the PHL for serotyping. Fifty-seven different serotypes were identified in 2006. Serotype identification was available for 87% of cases (N=528). The two most common serotypes were *Salmonella* Typhimurium (26%, 137/528) and *Salmonella* Newport (17%, 89/528). These two serotypes accounted for 43% of all of the isolates serotyped by the PHL. The third most common serotype identified among submitted isolates was *S. Enteritidis*, which represented 9.3% (N=49) of serotypes isolated. These three serotypes are consistently the three most common *Salmonella* serotypes among isolates submitted to the OSDH Public Health Laboratory.

Cases ranged in age from 22 days to 92 years of age with a median of 23 years. In 2006, 235 (38%) cases were in children less than five years of age (48.8 per 100,000 age specific population) and 56 cases occurred in those 70 to 79 years of age (27 per 100,000 age specific population). The highest gender specific rates occurred among males less than five years of age (54 per 100,000) followed by females less than 5 years old (43.5 per 100,000). Notably, the incidence rate for females (27 per 100,000) 50 to 59 years of age was three times that of males (8 per 100,000) in the same age group.

Cases were evenly distributed between the females (52%) and males (48%) resulting in incidence rates of 17.04 per 100,000 among males and 17.84 per 100,000 among females. For cases that reported race (N=552), higher rates were reported among persons who were American Indian and Alaska Natives (17.9 per 100,000), and Whites (17 per 100,000) followed by Black or African Americans (13 per 100,000).

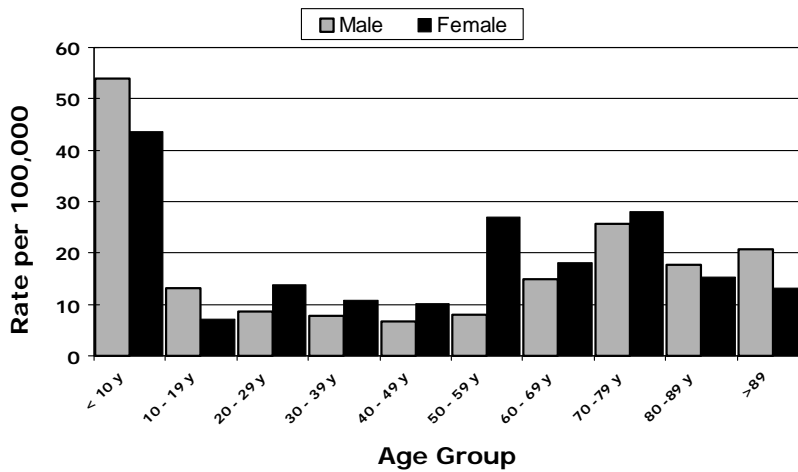
Most cases of *Salmonella* each year occur during the spring and summer months resulting in a seasonal trend. The highest number of cases occurred in September (14.4%, N=87), June (13%, N=78) and July (13%, N=78). The fewest number of cases was reported in January (3.6%, N=22).

Due to the modes of transmission of *Salmonella*, high-risk settings include childcare center settings (CCS), places where food is prepared, health care settings and long-

term care settings. Of the cases that reported a high-risk setting (N=99), 40% of the cases had a CCS association with 36 attendees and 4 employees. Five of these cases were food handlers, one case was associated with a correctional facility, three cases provided direct patient care and seven cases were residents of a long-term care setting or nursing home.

Prominent symptoms included diarrhea (94.8%), abdominal cramps (83.3%) and fever (74.7%). Vomiting was reported by 48.5% of cases followed by bloody diarrhea (41.8%). The duration of diarrhea ranged between one and 90 days with a median of 16 days. Thirty-three percent of cases were hospitalized and two deaths due to salmonellosis were reported.

Rate of Reported Salmonellosis Cases by Age Group and Gender, Oklahoma, 2006



Rate of Reported Salmonellosis Cases by Year, Oklahoma, 1997-2006

