

## Salmonellosis

2008 Case Total	901	2008 Rate	24.7 per 100,000
2007 Case Total	709	2007 Rate	20.6 per 100,000

The rate of salmonellosis in Oklahomans increased 27.6% between 2007 and 2008, marking a four-year trend of increases in the incidence of reported *Salmonella* cases. Of the 901 cases reported, 78 (9%) were not laboratory confirmed, but were identified by the county health department communicable disease nurse (CDN) as ill contacts to confirmed cases during case investigations. Each year a seasonal trend for salmonellosis is noted, with the highest number of cases occurring between June and September in 2008.

The age range of cases was from 11 days to 102 years with a median of 27 years of age. When the cases are grouped by age, the highest incident rate occurs in children under 10 years (incidence rate = 63.94 per 100,000). One death was reported due to salmonellosis in 2008, which occurred in a 90 year old individual. Though rare, hospitalizations and deaths due to salmonellosis are reminders that although it is usually a self-limiting disease, severe cases do occur.

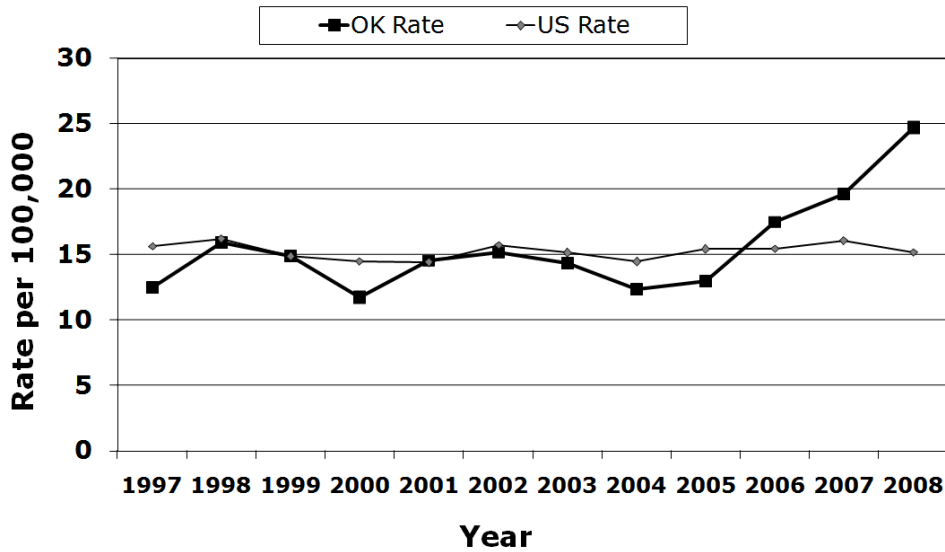
Clinical isolates of *Salmonella* species identified by laboratories are required to be submitted to the OSDH Public Health Laboratory (PHL). These referred isolates are confirmed, serotyped, and analyzed using pulsed-field gel electrophoresis (PFGE), generating distinct patterns that are stored in a national database maintained by the CDC for the purpose of identifying multistate outbreaks. Two noteworthy *Salmonella* outbreaks involved Oklahomans in 2008. One was a nationwide outbreak of *Salmonella* Saintpaul, which was the largest culture-confirmed foodborne disease outbreak identified in the U.S. in the past decade.<sup>1</sup> Of the 1442 ill persons described in the referenced publication, 38 were Oklahomans. Raw produce, specifically raw tomatoes, raw jalapeno peppers and raw serrano peppers were determined to be associated with this outbreak. A regional outbreak of *Salmonella* Braenderup occurred in association with a restaurant in Texas, and seven Oklahomans were culture-confirmed cases with indistinguishable pulsed-field gel electrophoresis patterns compared to the outbreak strain who reported having eaten at that establishment.

The OSDH PHL confirmed *Salmonella* and serotyped 787 isolates in 2008. Forty-seven different named serotypes were identified, with the top five serotypes in 2008 being Newport (194 cases, 24.7% of typed isolates), Typhimurium (134 cases, 17%), Paratyphi B (56 cases, 7.1%), Enteritidis (52 cases, 6.6%) and Saintpaul (49 cases, 6.2%).

### Demographic and Clinical Summary of Reported *Salmonella* Disease Cases, Oklahoma, 2008 (N = 901)

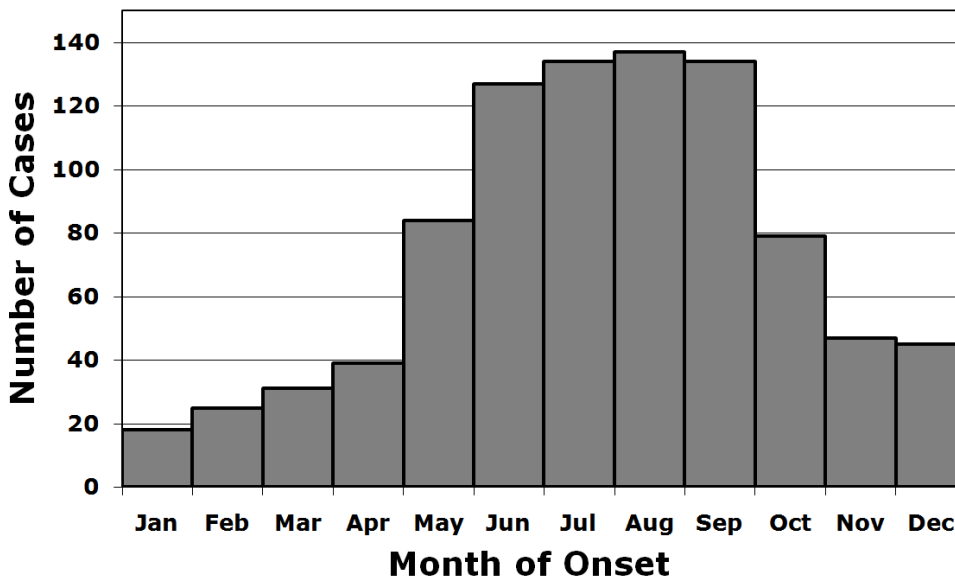
	Number (%)	Incidence Rate per 100,000
Gender (N = 898)		
Female	457 (50.9%)	24.8
Male	441 (49.1%)	24.5
Age	Median 27.63 years (range 11 days – 102 years)	
Race (N= 858)		
White	728 (84.8%)	25.6
American Indian or Alaska Native	56 (6.5%)	19.2
African American or Black	32 (3.7%)	11
Asian	5 (0.6%)	8
Native Hawaiian or Other Pacific Islander	5 (0.6%)	129.4
Two or more races reported	32 (3.7%)	21.6
Hispanic Ethnicity (N=792)	81 (10.2%)	29.1
Hospitalized	188 (20.9%)	-

### Salmonellosis Incidence Rate by Year, Oklahoma and U.S., 1997 – 2008\*



\*2008 U.S. data provisional based on CDC, MMWR 2008;57:1420-1431

### Reported Number of Salmonella Cases by Month, Oklahoma, 2008



<sup>1</sup>Centers for Disease Control and Prevention. Outbreak of *Salmonella* Serotype Saintpaul Infections Associated with Multiple Raw Produce Items — United States, 2008. MMWR 2008;57:929-934, available at <http://www.cdc.gov/mmwr/PDF/wk/mm5734.pdf>