Shigellosis

2010 Case Total	416	2010 Incidence Rate	11.3 per 100,000
2009 Case Total	399	2009 Incidence Rate	10.8 per 100,000

In 2010, a total of 416 cases of shigellosis were reported to the OSHD, an increase of 4.3% from 2009. Of the 416 cases, 261 (63%) were laboratory-confirmed cases and 155 (37%) were epidemiologically linked cases identified during investigations conducted by county health department communicable disease nurses. Revisions were made to the Oklahoma notifiable disease rules (Oklahoma Administrative Code 310, Chapter 515), which became effective July 2010, no longer requiring submission of *Shigella* isolates to the OSDH Public Health Laboratory for confirmation and speciation.

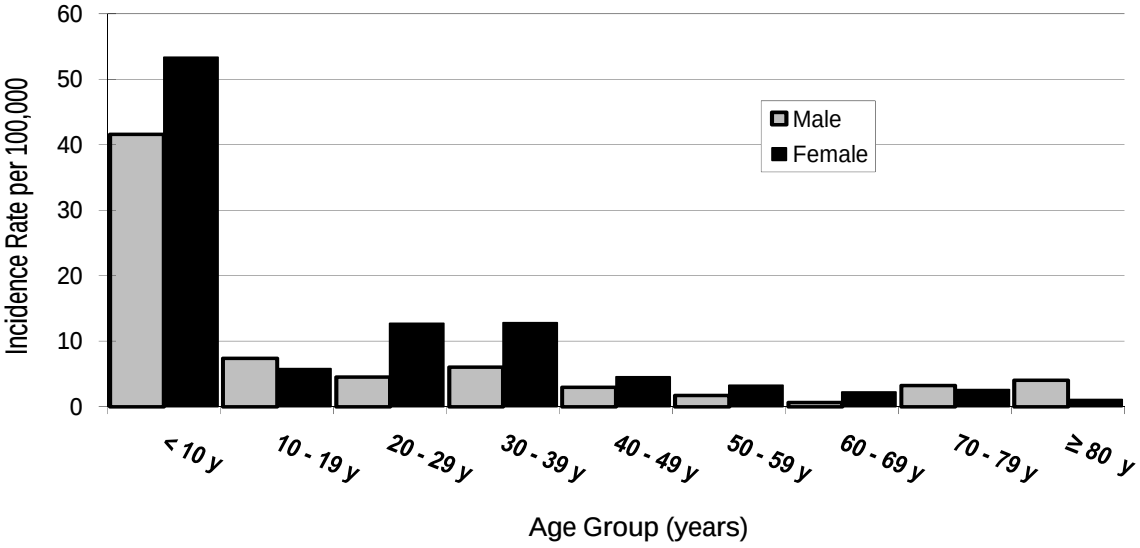
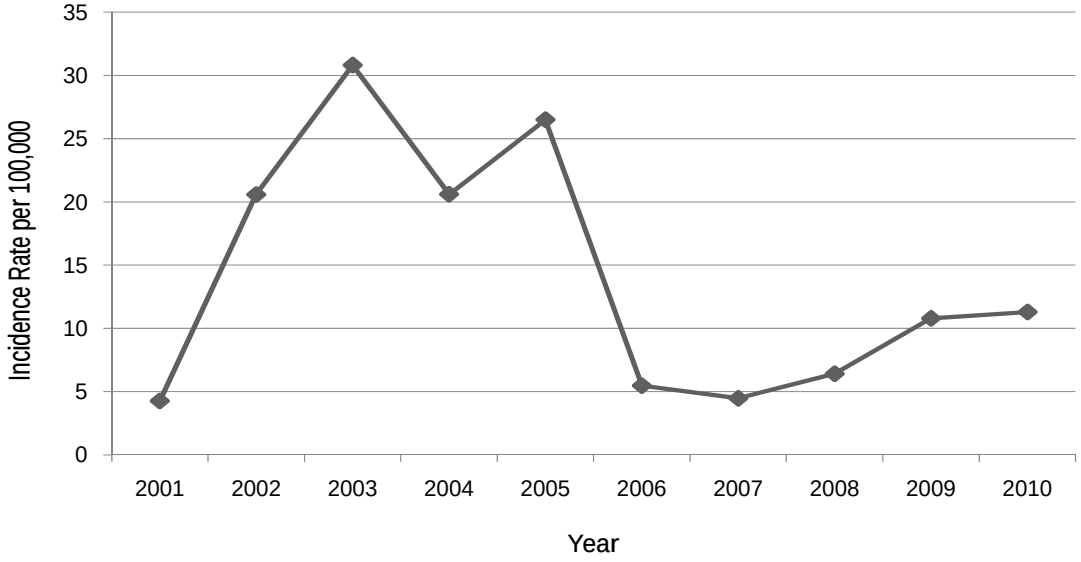
Shigellosis is typically a mild, self-limiting enteric disease with symptoms ranging from asymptomatic infection to severe disease. In 2010, 36 cases (8.7%) required hospitalization for shigellosis and no deaths were reported. Specimen sources of confirmed cases included stool (92%, n = 240), urine (7%, n = 19), and blood (0.4%, n = 1).

In 2010, shigellosis cases were reported in 30 counties in Oklahoma. The counties with the highest rates of *Shigella* were Wagoner (85.2 cases per 100,000 population), Beaver (75.9 cases per 100,000 population), Jackson (55.2 per 100,000 population), and Okfuskee (54.9 cases per 100,000 population). The highest rate of illness occurred in children less than 10 years of age (47.32 per 100,000 population). In 2010, females had higher rates of shigellosis in most age categories except for persons 10 to 19 years of age and greater than or equal to 70 years of age (refer to the figure showing incidence rates by gender and age group). Because of the low infectious dose of 10 to 100 organisms required to cause disease, a high secondary attack rate is normally seen in high-risk settings such as foodservice establishments, child care centers, long-term care facilities, and healthcare settings. Forty-eight percent (n = 187) of the 388 cases in 2010 with known exposure history reported association with a child care setting (CCS). Of those cases associated with a CCS, 118 (63.1%) were attendees, 12 (6.4%) were employees, 2 (1%) were food handlers in the CCS, and 55 (29.4%) had a household member that attended or worked in a CCS. Cases of shigellosis were also reported in persons associated with other high-risk settings including food handlers (1%, n = 4) and healthcare (2.3%, n = 9).

Demographic and Clinical Summary of Reported Shigellosis Cases, Oklahoma, 2010 (N = 416)

	Number (%)	Incidence rate per 100,000
Gender		
Female	241 (58%)	12.92
Male	175 (42%)	9.60
Age	Median = 7 years (range: 5 months – 83 years)	
Race		
White	261 (62.7%)	9.07
American Indian or Alaska Native	45 (10.8%)	15.19
Black or African American	54 (13%)	18.19
Native Hawaiin or other Pacific Islander	1 (0.2%)	25.34
Two or more races	33 (7.9%)	-
Unknown	22 (5.3%)	-
Symptoms (not mutually exclusive)		
Diarrhea	407 (98%)	-
Duration of diarhea (days)	Median = 5 days (range: 1 day – 42 days)	
Diarrhea, bloody	122 (30%)	-
Abdominal cramps	325 (78%)	-
Vomiting	173 (41%)	-
Mucous in stool	144 (35%)	-

Incidence Rate of Reported Shigellosis Cases by Age Group and Gender, Oklahoma, 2010 (N = 416)



Incidence Rate of Reported Shigellosis Cases by Year, Oklahoma, 2001-2010