

Hemolytic Uremic Syndrome, Post-diarrheal

2010 Case Total	11	2010 Incidence Rate	0.30 per 100,000
2009 Case Total	17	2009 Incidence Rate	0.47 per 100,000

Hemolytic Uremic Syndrome (HUS) is a condition characterized by an acute onset of microangiopathic hemolytic anemia, renal injury and thrombocytopenia, with the majority of cases preceded by a diarrheal illness. In 2010, the incidence rate (IR) of HUS in Oklahoma represented a 35% decrease from 2009. HUS became a nationally notifiable disease in 2000 and since that time Oklahoma's incidence rate has been similar to the national incidence. From 2001 to 2010, the median annual number of reported HUS cases in Oklahoma was 5 (range, 2 to 51), and the overall case fatality rate was 3%.

In 2010, the highest IR occurred among persons less than 5 years of age (2.21 per 100,000, n = 6), followed by cases 5 to 9 years of age (1.18 per 100,000, n = 3), and 70 to 79 years of age (0.48 per 100,000, n = 1). The incidence of HUS in women (0.38 per 100,000, n = 7) was 1.7 times greater than in men (0.22 per 100,000, n = 4) but was not statistically significant. Cases occurred among residents of nine Oklahoma counties.

The diagnosis of HUS is made through evaluation of a combination of laboratory test results. Anemia with microangiopathic changes shown on a peripheral blood smear was documented for eight (73%) of the cases. Of those with microangiopathic changes, schistocytes were most commonly seen (63%) compared to burr cells (38%) and helmet cells (25%), all non-exclusive. Hematuria was reported in 73% of cases; with proteinuria in 64% of cases. Additionally, elevated creatinine was documented for 82% of cases and thrombocytopenia in 91% of cases. An etiologic agent was identified in six (55%) of the 11 cases, which were *E. coli* O157:H7 (n = 5) and *E. coli* O121:H19 (n = 1) with results confirmed by the OSDH PHL.

Descriptive and Clinical Summary of Reported Hemolytic Uremic Syndrome Cases, Oklahoma, 2010 (N = 11)

	Number (%)	Incidence rate per 100,000
Gender		
Male	4 (36%)	0.22
Female	7 (64%)	0.38
Age	Median Age: 4 years (Range: 23 months – 71 years)	
Race		
White	10 (91%)	0.35
American Indian or Alaska Native	1 (9%)	0.34
Hispanic or Latino Ethnicity	1 (9%)	0.33
Symptoms		
Diarrhea	11 (100%)	--
Abdominal cramps	11 (100%)	--
Bloody diarrhea	9 (82%)	--
Vomiting	9 (82%)	--
Fever	8 (73%)	--
Hospitalized for HUS	11 (100%)	--
Hospitalization	Median Hospitalization: 15 days (Range: 3 days – 31 days)	
Died due to HUS	0 (0%)	--