

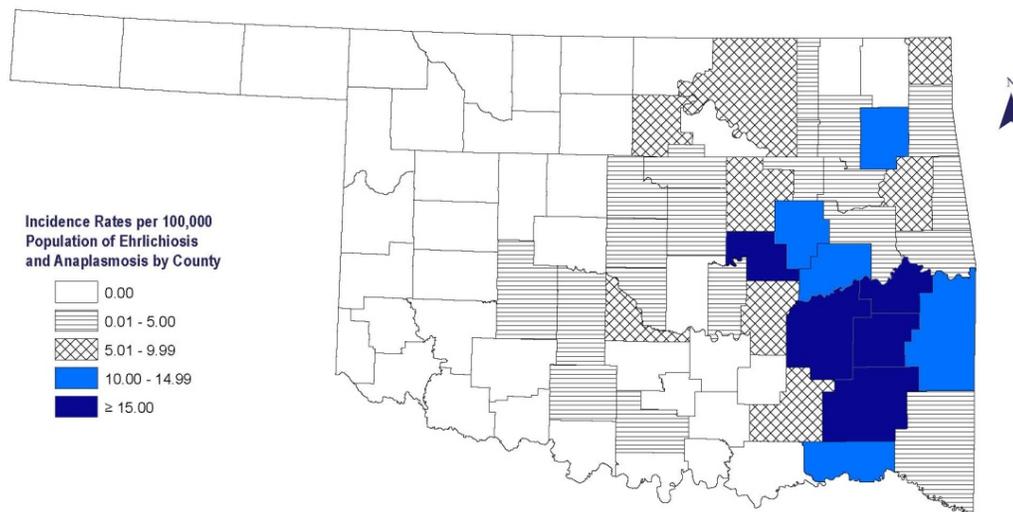
Ehrlichiosis and Anaplasmosis

2010 Case Total	107	2010 Incidence Rate	2.90 per 100,000
2009 Case Total	147	2009 Incidence Rate	4.04 per 100,000

Human monocytic ehrlichiosis (HME) and human granulocytic anaplasmosis (HGA, formerly called human granulocytic ehrlichiosis, or HGE) are distinct but closely related tickborne diseases with similar clinical presentations. For purposes of epidemiologic description, ehrlichiosis and anaplasmosis will be combined in this report. In 2010, the incidence rate (IR) of ehrlichiosis and anaplasmosis in Oklahoma represented a 27% decrease from 2009. However, the decline in cases may have partially been affected by changes in investigation processes; the Acute Disease Service focused on investigating reports with serologic titers above 1:64. From 2001 to 2010, the median annual number of reported cases in Oklahoma was 73 (range, 13 to 147). Eastern Oklahoma had higher incidence rates corresponding with its higher tick population. The counties with the highest rates of disease in 2010 were Pushmataha county (25.40 per 100,000, n = 3), followed by Haskell county (24.21 per 100,000, n = 3). The majority of the cases occurred during the warmer months of the year, when tick exposure is more likely. Onsets of illness were elevated from May to August and peaked in June.

Serologic testing is the most widely available and frequently used laboratory method for diagnosis. Both IgM and IgG antibody levels are used to confirm illness. Collection of acute (within a week of onset) and convalescent (2 to 4 weeks later) specimens are recommended for confirming the diagnosis. Treatment should be initiated before lab confirmation, when there is high suspicion of tickborne illness, to reduce the severity of disease. Doxycycline is the primary drug of choice for the treatment of ehrlichiosis and anaplasmosis.¹

Incidence Rate of Ehrlichiosis and Anaplasmosis Cases
by County of Residence, Oklahoma, 2010 (N = 107)



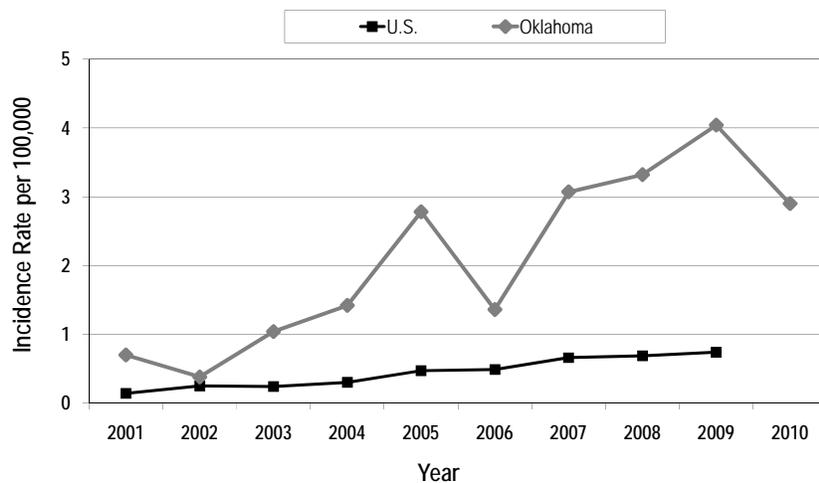
Data Source: OK State Department of Health, Acute Disease Service

Created: 06.15.2011

Descriptive and Clinical Summary of Reported Ehrlichiosis and Anaplasmosis Cases, Oklahoma, 2010 (N = 107)

	Number (%)	Incidence rate per 100,000
Gender		
Male	67 (63%)	3.68
Female	40 (37%)	2.14
Age	Median Age: 48 years (Range: 21 months – 82 years)	
Race		
White	60 (56%)	2.09
American Indian or Alaska Native	27 (25%)	9.12
Native Hawaiian or Pacific Islander	1 (1%)	25.34
Two or More Races	3 (3%)	1.98
Unknown	16 (15%)	--
Hispanic or Latino Ethnicity	1 (1%)	0.33
Unknown	40 (37%)	--
Disease		
Human Monocytic Ehrlichiosis	98 (92%)	--
Human Granulocytic Anaplasmosis	9 (8%)	--
Symptoms		
Fever	106 (99%)	--
Headache	68 (64%)	--
Myalgia	54 (50%)	--
Rash	28 (26%)	--
Reported Exposures		
Wooded or tick infested area	15 (14%)	--
Tick bite	40 (37%)	--
Hospitalized due to Ehrlichiosis or Anaplasmosis	26 (24%)	--
Died due to Ehrlichiosis or Anaplasmosis	0 (0%)	--

Incidence Rate of Reported Ehrlichiosis and Anaplasmosis Cases by Year, Oklahoma and U.S., 2001-2010*



*U.S. 2010 Rate Unavailable

ⁱ Heymann, David L., Editor. Control of Communicable Diseases Manual. 19th Edition. American Public Health Association, 2008