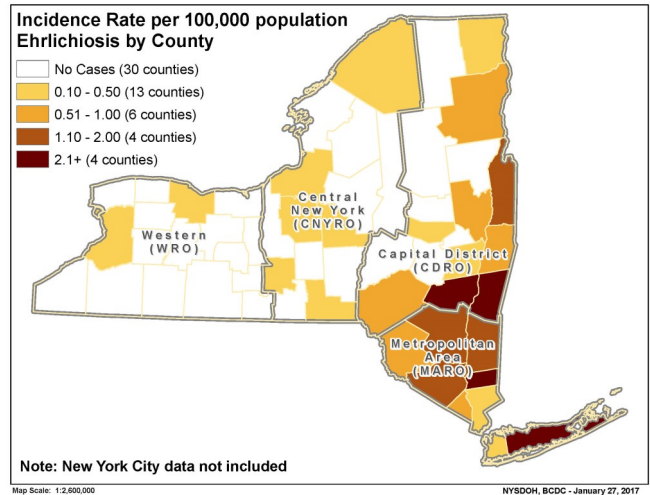
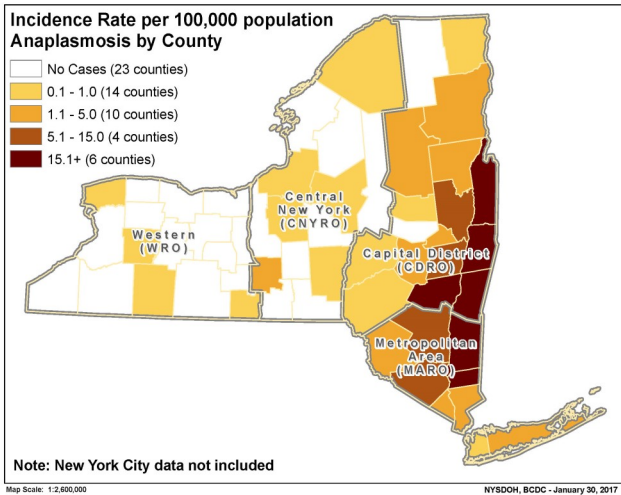


Anaplasmosis/Ehrlichiosis

Anaplasmosis/Ehrlichiosis Incidence Rate by County, NYS (excluding NYC), 2011-2015



Anaplasmosis and Ehrlichiosis are two related tick-borne diseases caused by *Anaplasma phagocytophilia* and *Ehrlichia chaffeensis* respectively. Ehrlichiosis is transmitted by the lone star tick. Anaplasmosis is transmitted by the deer tick. In New York State, exclusive of New York City, the highest burden of disease of both diseases has been reported on Long Island and in the Hudson Valley. To learn more about these diseases, please visit our [website](#).

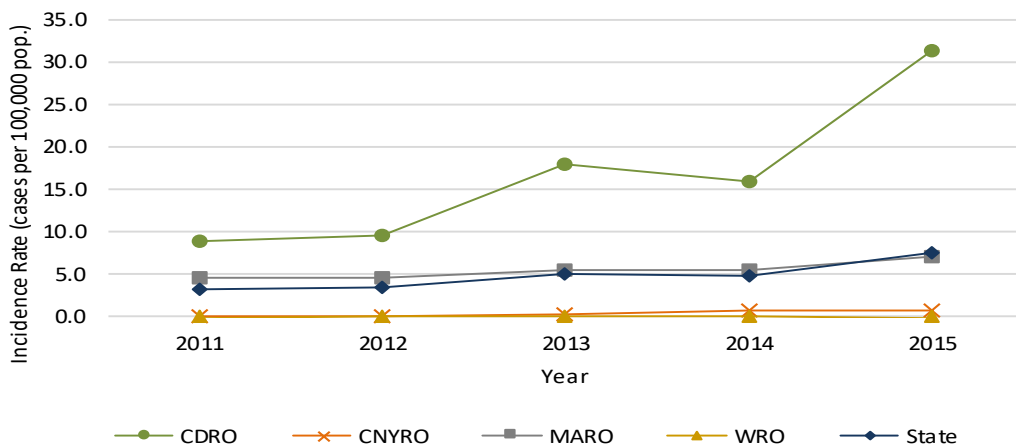
Annual case counts and incidence rates of anaplasmosis/ehrlichiosis have increased from 2011-2015. The increase was

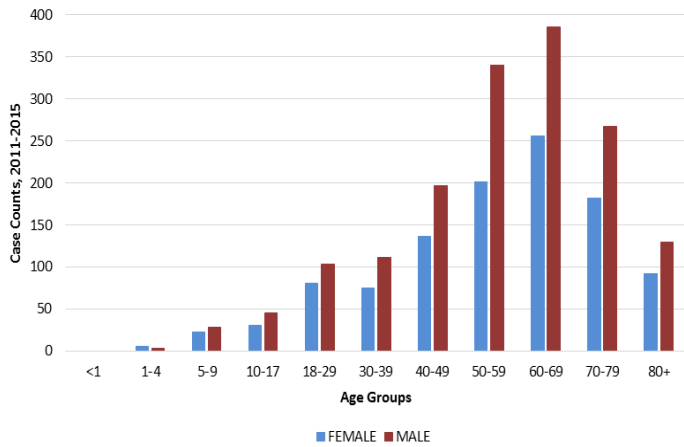
most striking in the Capital District Region with an incidence rate of nearly 32 cases/100,000 population in 2015.

The incidence rate in MARO stayed relatively stable over the 5-year time period, while in the Western and Central New York regions cases were rarely reported, reflecting the earlier geographic patterns of Lyme disease.

Of the 2,694 anaplasmosis and ehrlichiosis cases reported from 2011-2015, 29.8% were hospitalized; and 0.33% of cases with anaplasmosis and ehrlichiosis resulted in death.

Region	Cases and Incidence Rates (per 100,000 population), NYS (excluding NYC), 2011-2015											
	2011		2012		2013		2014		2015		Total	
	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate
CDRO	133	8.83	143	9.5	270	17.93	241	16	474	31.48	1261	16.75
CNYRO	2	0.11	2	0.11	6	0.34	11	0.63	12	0.69	33	0.38
MARO	231	4.51	230	4.49	286	5.58	285	5.56	361	7.05	1393	5.44
WRO	0	0	1	0.04	2	0.07	4	0.14	0	0	7	0.05
State	366	3.27	376	3.36	564	5.03	541	4.83	847	7.56	2694	4.81





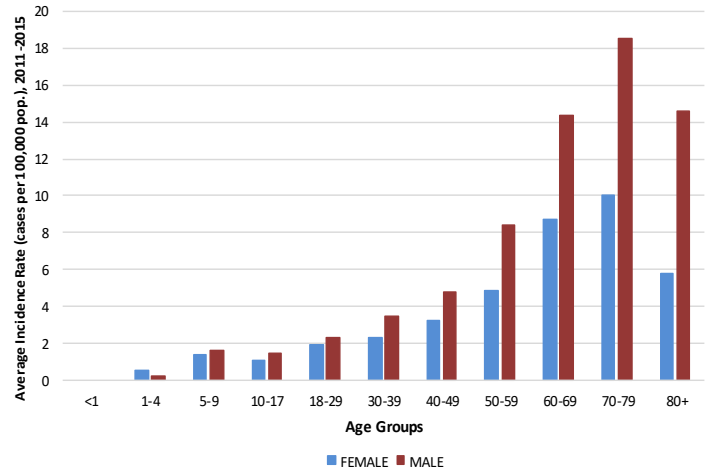
Anaplasmosis/Ehrlichiosis 5-year Cumulative Frequency by Age Group and Gender, NYS (excluding NYC), 2011-2015

Case counts of ehrlichiosis and anaplasmosis were much higher for males and for those over 50 years of age and above.

Anaplasmosis/Ehrlichiosis 5-year Average Incidence Rate by Age Group and Gender, NYS (excluding NYC), 2011-2015

Incidence rates of ehrlichiosis and anaplasmosis were much higher for males and for those 60 years of age and above.

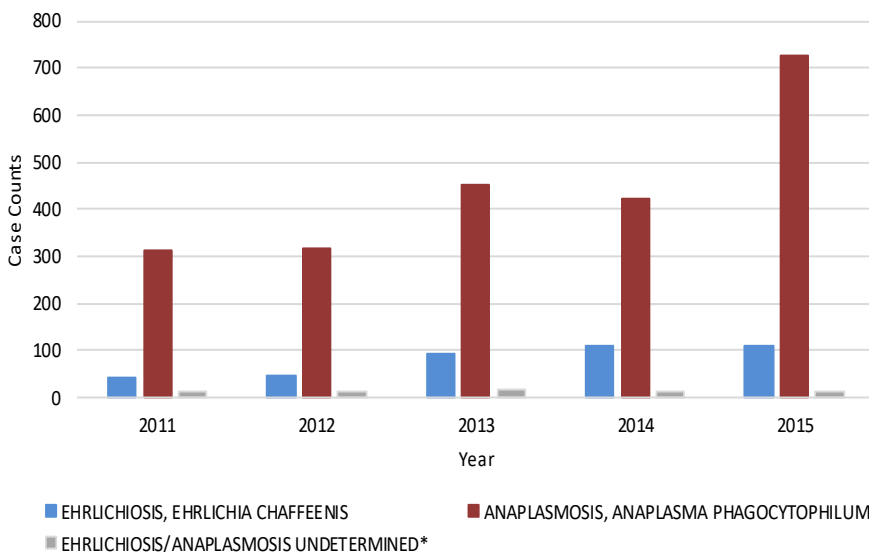
The highest burden of disease is found in adults 40 to 79 years of age, indicating a predilection towards older age groups. For most age groups anaplasmosis and ehrlichiosis have a male predilection, which is thought to be related to greater amounts of time spent outdoors or in an outdoor occupation.



Anaplasmosis/Ehrlichiosis Annual Case Counts NYS (excluding NYC), 2011-2015

Annual case counts of anaplasmosis/ehrlichiosis in New York State outside New York City, have increased from 2011-2015. The temporal-spatial pattern of human disease cases has mirrored the patterns seen in infected ticks, where there has been an increase in infected ticks north and west of the Hudson River Valley.

The deer tick is very common in NYS which contributes to the higher incidence of anaplasmosis when compared to ehrlichiosis.



*Undetermined anaplasmosis/ehrlichiosis cases are those where antibody testing was unable to distinguish between disease agents