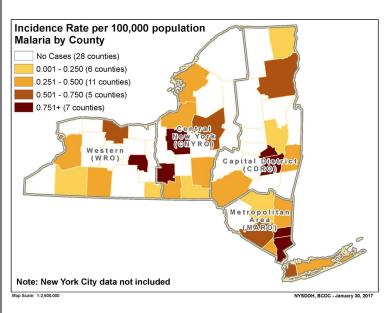
Malaria



Malaria Annual Incidence Rate by Year and Region, NYS (excluding NYC), 2011-2015

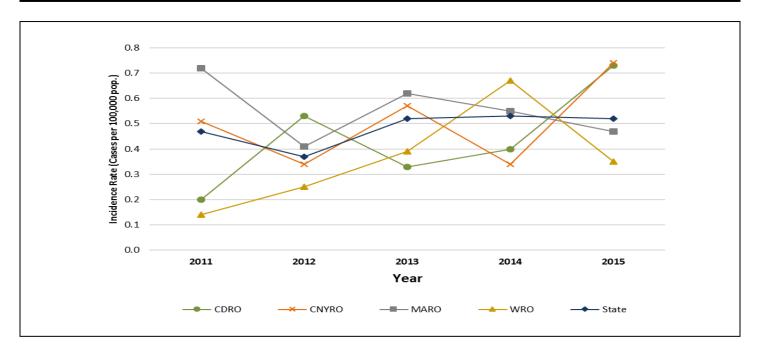
Malaria is a mosquito-borne disease caused by any one of four different blood parasites (*Plasmodia*). The disease is transmitted to people by the *Anopheles* mosquito. To learn more about malaria, please visit our website.

Malaria is generally transmitted in tropical and subtropical areas such as Africa, Asia, and Central and South America. Incidence rates of malaria in New York State have remained relatively steady within all regions since 2011. The majority of the cases over the 5-year time period were from the Metropolitan Region, as that region is associated with a population with high rates of travel. However, the possibility for local transmission of malaria exists as the malaria vector, *Anopheles* species mosquitoes, is present in NYS.

Of the 270 cases from 2011-2015:

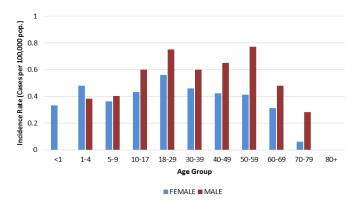
- 64.8 % were hospitalized,
- 0.4% of cases of malaria resulted in death.
- \bullet $\,$ 259 (96%) of cases reported travel outside of the United States during the six months before the illness began.

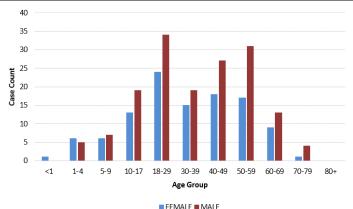
Region	Case and Incidence Rate (per 100,000 pop.), NYS (excluding NYC), 2011-2015											
	2011		2012		2013		2014		2015		Total	
	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate
CDRO	3	0.20	8	0.53	5	0.33	6	0.40	11	0.73	33	0.44
CNYRO	9	0.51	6	0.34	10	0.57	6	0.34	13	0.74	44	0.50
MARO	37	0.72	21	0.41	32	0.62	28	0.55	24	0.47	142	0.55
WRO	4	0.14	7	0.25	11	0.39	19	0.67	10	0.35	51	0.36
State	53	0.47	42	0.37	58	0.52	59	0.53	58	0.52	270	0.48



Malaria 5-Year Cumulative Frequency by Age Group and Gender, NYS (excluding NYC), 2011-2015

Malaria cases for whom age was known occurred primarily in persons aged 10 to 59 years old. Males have a higher burden of disease than females.





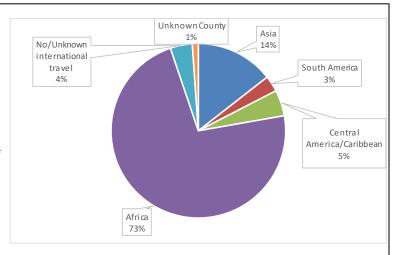
Malaria 5-Year Average Incidence Rate by Age Group and Gender, NYS (excluding NYC), 2011-2015

The highest rates of Malaria occurred in individuals aged 18 to 59 years old. Incidence rates were higher in adult males than adult females. Female children aged < 5 years old had higher rates than males in the same age group.

Malaria Cases by International Travel History and Location of Travel NYS (excluding NYC), 2011-2015

Malaria is generally transmitted in tropical and subtropical areas such as Africa, Asia, and Central and South America by an infected female *Anopheles* mosquito.

In the past five years 96% of cases reported travel outside of the United States during the six months before the illness began. The remaining cases, had no, unknown or missing travel history.



40 35 30 25 Counts 20 Case 15 10 0 2011 2012 2013 2014 2015 Year Yes ■ No ■ Unknown/Missing

Malaria Prevention (Chemoprophylaxis) NYS (excluding NYC), 2011-2015

Malaria prevention consists of a combination of mosquito avoidance measures and chemoprophylaxis.

Malaria chemoprophylaxis is preventive treatment which can significantly reduce the likelihood of infection and the severity of disease. Of the 270 cases reported, only 25% took prophylactic antimalarial drugs.

The recommended barrier interventions (such as long clothing and mosquito netting) may not be 100% effective, but are strongly encouraged for individuals traveling to areas where malaria is present.