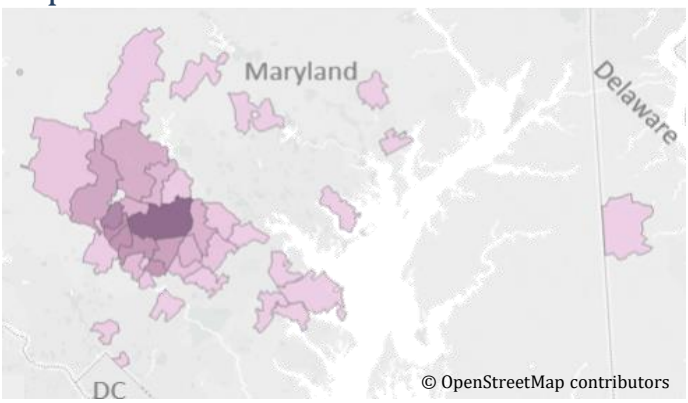
Triadelphia Vet Clinic Data

Our team selected the Triadelphia Veterinary Clinic SNAP 4Dx Plus Test dataset, which included a year's worth of test data from the clinic's dog "patients." The majority of the data revealed healthy dogs, with only 11% of tests coming back positive for one or more of the diseases that were tested for. The positive test results are summarized below, along with a map of all dogs by ZIP code.

	Positive	Negative	Total
Anaplasmosis	*78*	*1790*	*1868*
Lyme Disease	*98*	*1770*	*1868*
Ehrlichia	*41*	*1827*	*1868*
Total	***217***	***5387***	***5604***

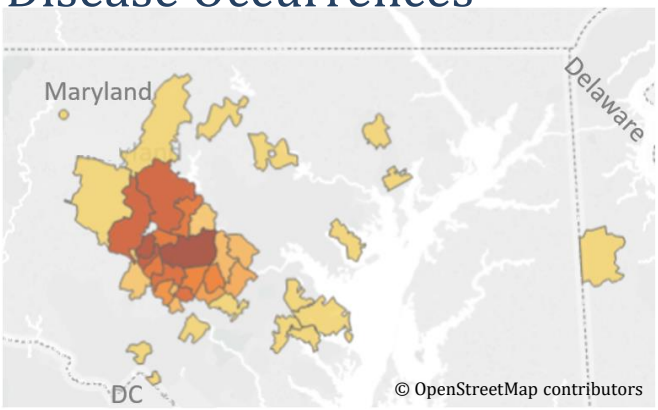
202 dogs accounted for 219 positive results
Only 10.9% of all tests resulted in positives

Zip Code Occurrences

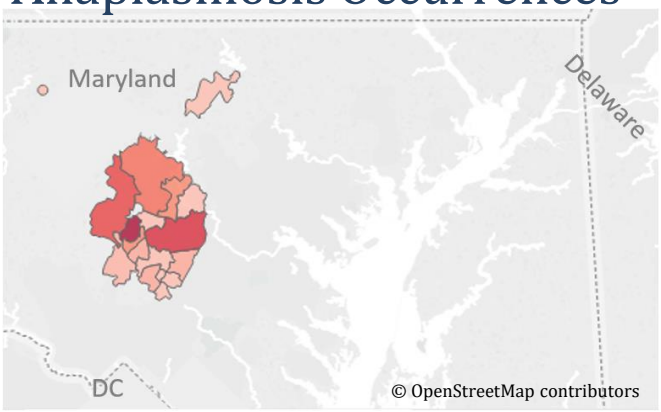


The first analysis the clinic wanted involved which ZIP codes had more dogs with tick-borne diseases. This is shown in the disease prevalence map below. We also created maps for the prevalence of each disease. Darker colors represent more disease occurrences.

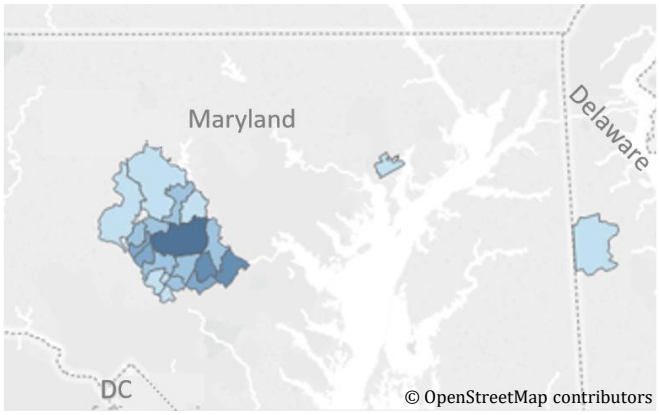
Disease Occurrences



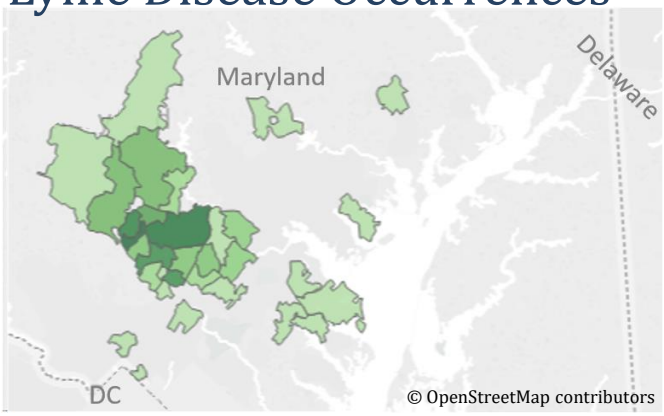
Anaplasmosis Occurrences



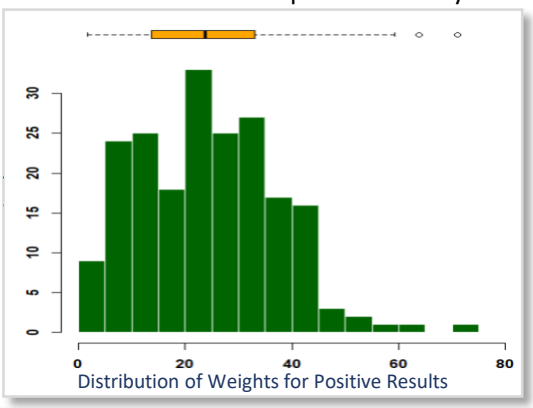
Ehrlichia Occurrences

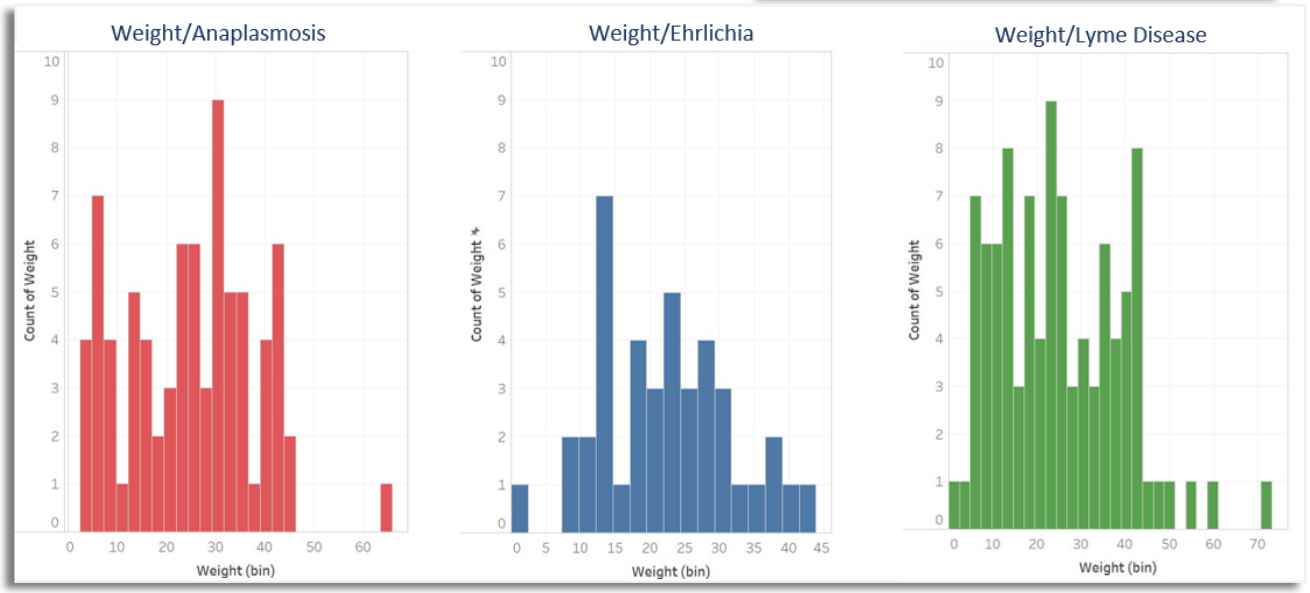


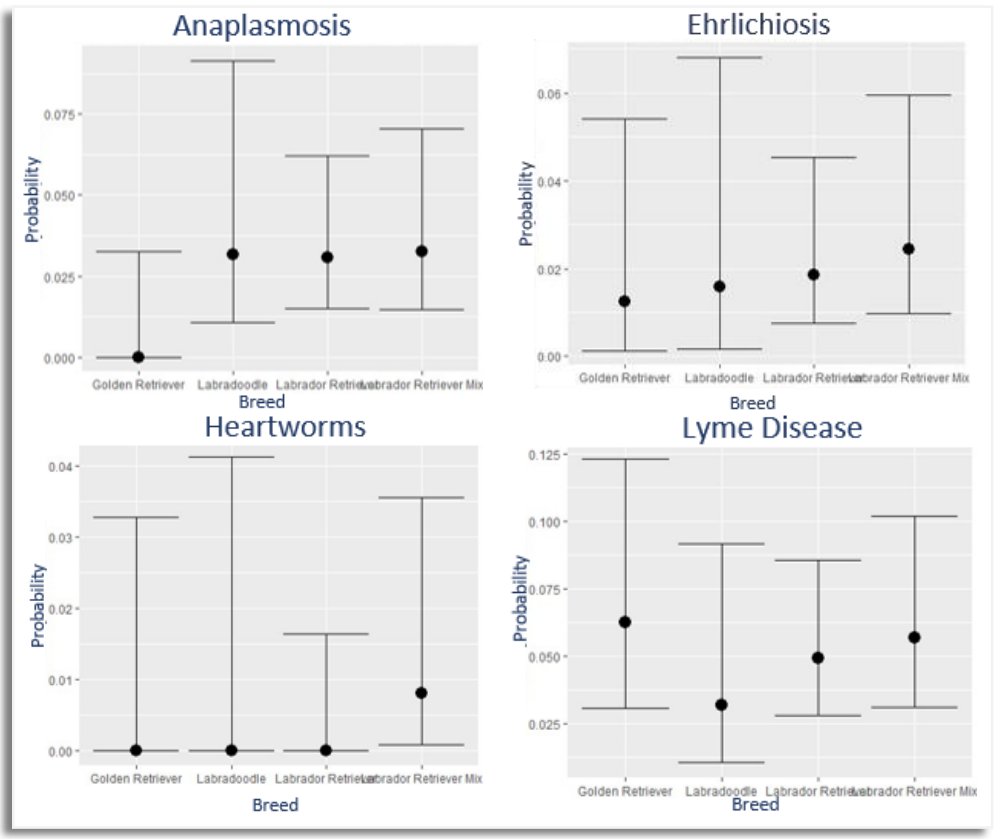
Lyme Disease Occurrences



In order to determine whether certain sizes of dog should be examined more frequently for tick borne diseases, the clinic asked us to determine if there was a correlation between the weight of the dog and whether they had a tick-borne disease. Based on the charts below, the team concluded there was likely no correlation between weight and disease probability for this data.







Finally, the clinic wanted to know if there is a correlation between breed and probability of tick-borne diseases. After evaluating the data we believe there is a 90% chance that no breed has a higher likelihood of catching a tick-borne disease in the TVCD area.

**All charts based on 90% confidence interval*