

Case Study: Chronic Wasting Disease

I had a client recently who was studying chronic wasting disease in deer. She had data on every deer that had been “harvested” in a certain area of Wisconsin in the last two years. For every adult (one year of age or greater), she has information on whether the adult carries a gene for susceptibility to and whether an offspring of that adult was also harvested. She also has a couple covariates, like the age of the adult when the offspring was born, the gender of the adult, and the number of deer that were harvested in the same area.

The main question is if there is a relationship between having the gene and having offspring.

What questions and/or concerns do you have?

She fit a bunch of different models and was comparing AIC values for them to see what predictors mattered. However, most of the models had very similar AIC values, so she wasn't sure what to do. What do you think?

She wanted to know if she wasn't finding many differences because the sample size was too low, and asked how she could compute how much power she had to find a difference. What might you tell her?

Name: _____

Tell me something interesting you learned while discussing today's case.
