

4.3 Using Studies Wisely

If we get statistically significant evidence:

- ① If individuals are randomly selected (sample) we can make an inference about the population based on the result of the sample.
- ② If individuals are randomly selected to groups of an experiment, we can make a cause + effect inference of similar individuals in the experiment

Establishing Causation (if you can't do an experiment)

- ① There must be a strong association between the variables.
- ② The association must be consistent
- ③ Larger values of the explanatory variable are associated with stronger responses.
- ④ The alleged cause precedes the effect in time
- ⑤ The alleged cause is plausible