

What Data Do We Need?

Your friend claims that the tap water in her county is healthier than the tap water in your county. In the space below, write about the data you would need to collect in order to find out **whose county has the healthiest tap water**. Consider:

- How would you ensure your sampling is fair?
- How would you measure “healthiness” of water?
- Are there any threats to validity to keep in mind while collecting data?

Ideally, samples should be taken from all water sources, or at least a representative sample of water sources in both counties. Data on various bacteria levels and ph of each sample should be taken and compared to determine the healthiness of the water. Possible threats to validity include discrepancies in the type of water samples (lake vs. pond, urban/rural counties, etc.) leading to a lack of consistency in the water samples compared.