Name: KEY

Standard One: Quiz One – Why Statistics?

Why do we use statistics? Give an example from the notes, something you've read or something you've watched on TV and explain why it's important.

This answer will vary...

We use statistics to measure things that are too big to measure - an example of this is finding the average height of Americans. While it is practically impossible to measure 300 M Americans we can measure a smaller number of Americans & use statistics.

Standard Two: Quiz One – Can You Die from a Broken Heart?

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1982801/pdf/brmedj02024-0030.pdf

C. Myrray Parkes headed a study of 4,486 men of 55 years of age and older who had their wives die in 1957 that responded to and signed up for his study. For up to nine years, these widowers were tracked and 213 died during the first six months – that's about 5%. After further research he noted that this was 40% higher than the expected rate, of about .035, for married men of the same age that had not been widowed and his paper goes on to argue that all men are more likely to die six months after their wife dies than men who are not widowed. Identify the following:

a. Population: All men 55 years of age and older who had their wives die in 1957

b. Sample: 4,486 men in the study

c. Sampling Method: Volunteer

d. Variable of Interest: Whether or not they die within six months

e. Statistic: 213 men or "about 5%"

f. Is this an observational study or a designed study? Observational

g. Is blinding used in this experiment? NO.

h. Bonus: Can you think of a confounding situation here? What could a lurking variable be?

Husbands and wives can participate in similar risky activities like smoking, drinking, sky diving etc that can lead to similar life expectancy.

Name: Key

Standard Three: Quiz One – Types of Data?

http://www.politico.com/story/2016/01/poll-trump-ted-cruz-217954

The NBC/SurveyMonkey poll for the week of January 11th to 17th polled 11,579 adults 18 and over. The survey asked which candidates participants preferred in both the GOP and Democratic nomination process.

To check for certain associations with each candidate they asked participants to identify their age, race, gender, region, and voter registration status; this way statisticians can say how each candidates are doing with respect to different demographics.

a) **Name the variable(s) of this study and their respective type(s).**

Candidate preference : Categorical

Age: Continuous Quantitative - Discretely measured

Race: Categorical

Gender: Categorical

Region: Categorical

Voter Registration Status: Categorical