



FOCUS on Field Epidemiology

DISCUSSION QUESTIONS: Data Analysis Basics: Variables and Distribution

1. What type of variable would you use to collect information on income? Why?

Income data could be collected two ways. First, you could collect income as a continuous variable. This would allow you to report the mean or median income of the study population. You could also then recode that data into categories if necessary. The other option would be to collect income as an ordinal categorical variable. You would lose the ability to report on mean/median income, but the respondents may be more likely to answer this sensitive question if it is more general.

2. Descriptive analyses are primarily univariate, meaning that they focus on describing a population through variables, but that no associations between variables are calculated. What situations can you think of where descriptive analyses are most useful?

Descriptive analyses are useful in describing new, or at least newly quantified, phenomena that are of interest to public health. These types of analyses are quite common, and are often not done under the same time pressure as an outbreak study. You may have many examples of descriptive analyses available; a few hypothetical examples include:

- Describing the age, gender, and race/ethnicity of people who utilize public health services (this type of description is informative to those providing the services)
- Describing the education and access to healthcare of a population sub-group of concern (this will help target interventions more appropriately, which would be useful, for example, in trying to encourage the elderly of a community to get their flu shots)
- Describing the knowledge or attitudes of a population about a health issue (this will also help target interventions, for example, in educating a rural community about condom use and sexually transmitted diseases)



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