

6EB37875

[Save and Exit](#)

Cross-sectional studies I

[Align Quiz to Standard](#)[Enable Sharing](#)
SOC-52827956

1. Which of the following may be considered a defining characteristic of a cross-sectional study?
- A Cross-sectional studies are defined by the fact that they are inexpensive.
 - B Cross-sectional studies are defined by the fact that exposure status and disease status are measured simultaneously.
 - C Cross-sectional studies are defined by the fact that study participants are selected based on their exposure status.
 - D Cross-sectional studies are defined by the fact that study participants are selected based on their disease status.



2. Let's say I'm interested in the relationship between smoking and lung cancer. Below, I describe two scenarios for studying that relationship:

Scenario 1: I go find a random sample of people from Texas. I give them a detailed questionnaire about current and past health behaviors. I also do a full medical exam and medical record review with them (as might be done with NHANES). One of the analyses I conduct is the association between lung cancer and past smoking behavior.



Scenario 2: I go to the Texas cancer registry and select a random set of people with lung cancer. I then draw a random sample of Texans who do not have lung cancer. I give both groups a detailed questionnaire about current and past health behaviors — including smoking. Then, I analyze the association between lung cancer and past smoking behavior.

What type of study design is described in each of the scenarios above?

- A** Both scenarios describe case-control studies.
 - B** Both scenarios describe cross-sectional studies.
 - C** Scenario 1 describes a case-control study and scenario 2 describes a cross-sectional study.
 - D** Scenario 1 describes a cross-sectional study and scenario 2 describes a case-control study.
- i** This this case, both studies are virtually identical aside from the sampling strategy. But, it provides an opportunity to discuss some of the ways in which cross-sectional and case-control studies are typically different:
1. Sampling methods.
 2. Cross-sectional studies are inefficient and hard to power for rare exposures and outcomes.
 3. Typically ask about exposures and outcomes right now (or very recently). Although, that wasn't the case in the example above.

3. Which of the following is a strength of cross-sectional studies?

- A** Researchers are able to directly measure incidence for all factors under investigation when using data from a cross-sectional study.
- B** Cross-sectional studies typically allow for multiple outcomes and exposures can be studied.
- C** Cross-sectional studies are highly efficient for studying the rare





diseases.



Because we are asking people about about exposures and outcomes all at one time, it's typically pretty easy to ask about multiple different exposures and outcomes at once.

4. Which of the following is NOT a limitation of cross-sectional studies?

- A** It may be difficult to distinguish factors that affect incidence of disease from those that affect duration of disease.
- B** It may be difficult to calculate the disease burden (prevalence of disease) based on a cross-sectional study.
- C** It may be difficult to determine whether the outcome followed exposure in time or exposure resulted from the outcome.



A and C are potential limitations of cross-sectional studies. However, we often can calculate the prevalence of disease using data from cross-sectional studies.



Add a Question

Multiple Choice

True / False

Short Answer

Socrative  Get **PRO!** [Learn More](#)