

# Test Bank for Essentials of Biostatistics in Public Health 3rd Sullivan

TEST BANK SAMPLE PREVIEW

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## Chapter 2 eBook Graded Quiz

### Multiple Choice

1. A design in which subjects are not randomly assigned to treatments is referred to as what type of study design?

- [1] Quasi-experimental design
- [2] Double-blind design
- [3] Per protocol design
- [4] Cross-sectional design

<Answer: 1>

<Complexity: Easy>

<A-head: Vocabulary>

<Subject: Chapter 2>

### Multiple Choice

2. Which study type is generally conducted without first establishing a hypothesis?

- [1] A clinical trial
- [2] A cohort study
- [3] A case series
- [4] A case control study

<Answer: 3>

<Complexity: Moderate>

<A-head: The Case Report/Case Series>

<Subject: Chapter 2>

### Multiple Choice

3. Which type of study design is the most important type of study in determining the rare side effects of a drug that occur with long-term usage?

- [1] A clinical trial
- [2] A cohort study
- [3] A case control study
- [4] A cross over trial

<Answer: 2>

<Complexity: Difficult>

<A-head: The Cohort Study>

<Subject: Chapter 2>

### Multiple Choice

4. The applicability of the research results to a specific population obtained from a biostatistics study is best determined by which of the following?

- [1] The inclusion and exclusion criteria of the study

[2] Whether or not the study was randomized  
[3] How the data obtained in the study is managed  
[4] The specifics of the study's treatment protocol  
<Answer: 1>  
<Complexity: Difficult>  
<A-head: More on Clinical Trials>  
<Subject: Chapter 2>

### **Multiple Choice**

5. Why are early stages of clinical trials conducted on such a small sample of individuals?  
[1] Small sample sizes allow the study to be kept confidential while the drug is patented so other drug manufacturers cannot replicate the drug of interest.  
[2] Early stages of clinical trials always use a crossover design so the participants serve as their own control group.  
[3] Small sample sizes limit exposure to the drug since this is most likely the first time the drug being studied has been introduced into the human population.  
[4] At this point the drug has already been tested in animals so the only reason to test the drug in humans is to make sure the drug works the same in the human population.  
<Answer: 3>  
<Complexity: Moderate>  
<A-head: More on Clinical Trials>  
<Subject: Chapter 2>

### **True/False**

6. Incidence of disease is the proportion of individuals with the condition (disease) at a single point in time

<Answer: False>  
<Complexity: Easy>  
<A-head: Vocabulary>  
<Subject: Chapter 2>

### **True/False**

7. The major advantage of a crossover trial is that each participant acts as their own control; therefore, there is no need to worry about the issue of treatment groups being comparable with control groups with respect to their baseline characteristics.

<Answer: True>  
<Complexity: Easy>  
<A-head: The Crossover Trial>

<Subject: Chapter 2>

**True/False**

8. A nested case-control study is oftentimes utilized to select a population of individuals to study who have rare medical conditions, not commonly observed in the normal population.

<Answer: True>

<Complexity: Moderate>

<A-head: The Nested Case-Control Study>

<Subject: Chapter 2>

**True/False**

9. A common form of bias among a retrospective study design may occur when individuals inaccurately recall the frequency of certain exposures, or overestimate their exposure, because they are looking for some reason why they would be affected by a particular illness.

<Answer: True>

<Complexity: Moderate>

<A-head: The Case-Control Study>

<Subject: Chapter 2>

**True/False**

10. Stratification of a sample can be used to decrease the likelihood that a sampled population will exclude members of a particular subpopulation of interest.

<Answer: True>

<Complexity: Moderate>

<A-head: Vocabulary>

<Subject: Chapter 2>

Import Settings:  
Base Settings: Brownstone Default  
Information Field: Complexity  
Information Field: Ahead  
Information Field: Subject  
Highest Answer Letter: D  
Multiple Keywords in Same Paragraph: No

## **Chapter: Chapter 02 - Quiz**

### **Multiple Choice**

1. The minimization of bias and confounding in clinical trials is obtained through the use of which of the following?

- A) Screening of study participants during recruitment to eliminate variation among participants
- B) The establishment of stringent inclusion criteria ensuring participants that are all similar
- C) The elimination of variation through the establishment of detailed exclusion criteria
- D) Randomization of study participants to make groups comparable in all respects

Ans: D

Complexity: Easy

Ahead: Randomized Study Designs

Subject: Chapter 2

2. A researcher is interested in determining the current prevalence of rheumatoid arthritis in the United States. Which type of study would be most useful in estimating the prevalence of rheumatoid arthritis in the United States?

- A) A nested cohort study
- B) A cross-sectional survey
- C) A randomized clinical trial
- D) A case-crossover study

Ans: B

Complexity: Difficult

Ahead: The Cross-Sectional Survey

Subject: Chapter 2

3. A number of patients have been admitted to a particular hospital with similar symptoms and the cause of the illness is unknown. Which type of study design would be most helpful in determining the cause of the illness?

- A) A randomized trial
- B) A case series
- C) A retrospective cohort
- D) A case-control study

Ans: B

Complexity: Difficult  
Ahead: The Case Report/Case Series  
Subject: Chapter 2

4. Misclassification bias is most likely to be observed in which study type?

- A) A randomized control trial
- B) A cross-sectional survey
- C) A prospective cohort
- D) A case-control study

Ans: D

Complexity: Easy  
Ahead: The Case-Control Study  
Subject: Chapter 2

5. A novice researcher noted that during summertime there is a positive association between the increase in ice cream sales and the increase in the number of drownings; however, there is no logical explanation for why ice cream sales would be responsible for the increased incidence of drowning. What phenomenon likely explains this type of observation?

- A) Placebo effect
- B) Concurrency
- C) Confounding
- D) Misclassification Bias

Ans: C

Complexity: Moderate  
Ahead: Vocabulary  
Subject: Chapter 2

### **True/False**

1. True or False? An active-control trial is the best option for researchers hoping to test a newly devised therapy for a life-threatening illness among individuals with the illness, when a previously devised treatment is available for the illness.

Ans: True

Complexity: Moderate  
Ahead: Randomized Study Design  
Subject: Chapter 2

2. True or False? The application of treatment among participants in an experimental study is a key difference between an experimental study and an observational study.

Ans: True

Complexity: Moderate  
Ahead: Randomized Study Designs

Subject: Chapter 2

3. True or False? Intention-to-treat analysis for a study is only conducted among individuals who fully complied with a study's protocols.

Ans: False

Complexity: Easy

Ahead: Vocabulary

Subject: Chapter 2

4. True or False? Extremely rare side effects of medications studied in clinical trials are more likely to be observed in cohort studies conducted during post marketing-surveillance because of the limited number of participants in clinical trials.

Ans: True

Complexity: Difficult

Ahead: More on Clinical Trials

Subject: Chapter 2

5. True or False? The wash-out period is included in a crossover trial so that any therapeutic effects of the first treatment are removed, prior to the administration of the second treatment.

Ans: True

Complexity: Easy

Ahead: The Crossover Trial

Subject: Chapter 2