# Biostatistics

## Archive

## Lecture 13

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**Q1.** All of the following is correct regarding snowball sampling technique except:
a. It may introduce sampling bias.
b. It is a non-probability sampling technique.
c. Mostly used in cases with social stigma like people with AIDS or those with narcotics addiction.
d. It helps in generalizing the results to the whole population

**Answer: D. It helps in generalizing the results to the whole population**

**Q2.** A researcher is conducting a study on the prevalence of a rare disease in a small community. Due to limited resources and difficulty in identifying individuals with the disease, the researcher decides to recruit participants through referrals from the few known cases. The type of sampling method is most likely being used in this study is:
a. Probability sampling
b. Convenience sampling
c. Snowball sampling
d. Stratified sampling

**Answer: C. Snowball sampling**

**Q3.** A group of researchers wants to investigate the preferences of college students regarding their study habits. They decide to visit a nearby university campus and approach students who are available in the library during a specific time frame. The type of sampling method is most likely being used in this study:
a. Probability sampling
b. Convenience sampling
c. Snowball sampling
d. Cluster sampling

**Answer: B. Convenience sampling**

**Q4. When you invite people to participate in a certain biostatistical research, the type of sampling you are using is:**
a. Probability sampling
b. Convenience sampling
c. Snowball sampling
d. Stratified sampling

**Answer: B. Convenience sampling**

**Q5. One of the following is incorrect regarding stratified sampling technique:**
a. Each stratum is considered an independent sub- population.
b. We do not take each stratum as a whole.
c. In this technique we ensure adequate representation of minorities.
d. We use the same sampling fraction for all strata.
e. This sampling technique can affect the statistical power of our study.

**Answer: B. we do not take each stratum as a whole**

**Q6. When you ask people if they are willing to participate in a certain biostatistical research, the type of sampling you are using is:**
e. Probability sampling
f. Convenience sampling
g. Snowball sampling
h. Stratified sampling

**Answer: B. Convenience sampling**

**Q7. The following is incorrect regarding cluster sampling:**
a. Sampling units are groups rather than individuals
b. It is the best technique to use when a certain criterion is to be studied
c. Random subjects from each cluster are selected
d. It is based on the geographical contiguity
e. Both b and c.

**Answer: E. Both b and c**

**Q8. One of the following is not a probability sampling:**
a. Systematic sampling
b. Cluster sampling
c. Stratified random sampling
d. Simple random sampling
e. Convenient sampling

**Answer: E. Convenient sampling**

**Q9. . A sample of 150 will be selected to represent the population of 5000 subjects in the following table**
using the method of proportional allocation. The sampling method is:
a. Multistage sample
b. Stratified random sample
c. Cluster sample
d. Systematic random sample
e. Simple random sample

| Education Level | Frequency |
|---|---|
| Illiterate | 1000 |
| School Education | 3000 |
| University Graduate | 1000 |
| Total | 5000 |

**Answer: b. Stratified random sample**

**Q10. . We have decided to conduct a study on smoking among students of Mutah University. If we selected the first five students entering each faculty. The type of this sampling will be:**
a. Simple random sampling
b. Systematic random sampling
c. Stratified random sampling
d. Cluster random sampling
e. Multi- stage random sampling

**Answer: C. Stratified random sampling**

University was divided into faculties (strata) and we chose them all. Then by a way of random sampling we carried on

**Qll. We have decided to conduct a study on smoking among students of Mutah University. By using the random digit, we collected samples from 100 students from the main library. The type of this sampling will be:**
a. Simple random sampling
b. Systematic random sampling
c. Stratified random sampling
d. Cluster random sampling
e. Multi- stage random sampling

**Answer: D. Cluster random sampling**

Random digit is used for simply random sampling. However, it can be used with other methods. For simple random sampling to be the one used ALONE, all the population should be given numbers and this sounds to be impracticable for a university. Moreover, "from the main library" suggest a cluster (i.e. university building, then we picked this sub-element).

**Q12.** A sample of 150 will be selected to represent the population of 5000 subjects in the following table, using the method of proportional allocation. The number of university graduates in the sample will be:

a. 60
b. 50
c. 45
d. 26
e. 10

| Education Level | Frequency |
|---|---|
| Illiterate | 1800 |
| School education | 1700 |
| University graduate | 1500 |
| total | 5000 |

**Answer: c. 45**

**Q 13,** . In an urban area, 3 households were randomly selected then every person in each household was studied. This type of sampling is:

a. Simple random sampling
b. Systematic random sampling
c. Stratified random sampling
d. Cluster random sampling
e. Multi- stage random sampling

**Answer: D. Cluster random sampling**

**Q14.** • A group of individuals were divided into sub-groups based on specific characteristics then random samples were selected from each. This type of sampling is:

a. Simple random sampling
b. Systematic random sampling
c. Stratified random sampling
d. Cluster random sampling
e. Multi- stage random sampling

**Answer: C. Stratified random sampling**