

BSc VIth Sem: What is biostatistics?

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What is biostatistics?

- Biostatistics is a method of collecting and analyzing biological data.

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- Biostatistics is the methodology
 1. for collecting,
 2. analysing,
 3. interpreting and
 4. drawing conclusions from biological information or data.

- Putting it in other words, biostatistics is the methodology which researchers have developed for interpreting and drawing conclusions from collected biological data.



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- biostatistics is much more than just the tabulation of numbers and the graphical presentation of these tabulated numbers.
- bioStatistics is the science of gaining information from numerical and categorical data like the blood type of person, marital status or religious affiliation, food habit, life style etc.

Use of biostatistics

Statistical methods can be used to find answers to the questions like:

- What kind and how much data need to be collected?
- How should we organize and summarize the data?
- How can we analyse the data and draw conclusions from it?
- How can we assess the strength of the conclusions and evaluate their uncertainty?.

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Bio statistics provides methods for:

- 1. Design: Planning and carrying out research studies.
- 2. Description: Summarizing and exploring data.
- 3. Inference: Making predictions and generalizing about phenomena represented by the data.

Sample Vs population

- Population and sample are two basic concepts of statistics. Population can be characterized as the set of individual persons or objects in which an investigator is primarily interested during his or her research problem, Sometimes we want to measure all individuals then population are obtained, but
- often only a set of individuals of that population are observed; such a set of individuals constitutes a sample. Therefore:
- Population is the collection of all individuals or items under consideration in a statistical study.
- while Sample is that part of the population or items from which information is collected.

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Population vs. Sample

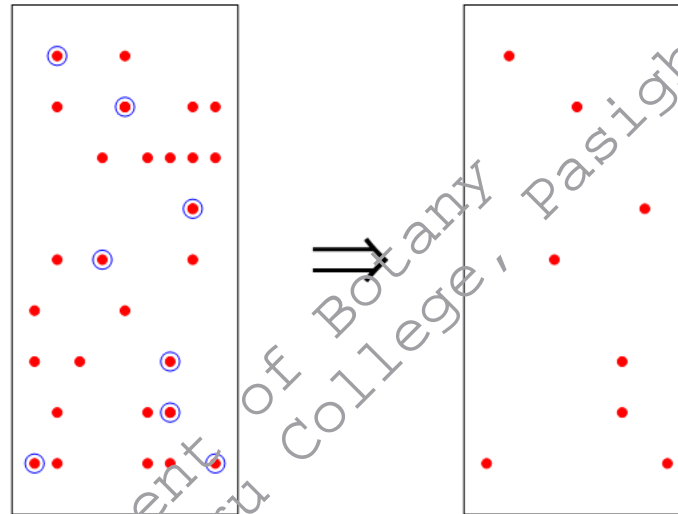


Figure 1: Population and Sample

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