Introduction

Biometry is a large and complex field that arises from the application of statistics and mathematics to biology.

It includes design and data collection, analysis, and interpretation of results, depend on statistical principles and methods. Discard any notion that biological statistics is all about hypothesis.

A well-developed Bio mathematical model that accurately describes the data aids in understanding what data say, and so in making predictions and forming new questions.

Many biologists and medical researchers are trained without getting any real insight into the methods of science. Secondly, many editors trained in this manner will not accept papers for publication unless they follow these procedures.

For data collection and analysis, the same fundamental principles apply to experiments, to observational studies, and to the secondary analysis of data collected for another purpose.

In essence, the aim of the study is to provide insight by means of numbers, and it is useful for

1-Collection of data.

2-Organization of data.

3-Drawing conclusions from data.

Definitions

Biometry

1:It is statistical analysis of biological observations and phenomena

2: measurement of living tissue or bodily structures. The bases for refractive correction as an aspect of cataract surgery are accurate biometry on the one hand and corneal topography on the other.

Sample

A sample refers to a smaller, manageable version of a larger group. It is a subset containing the characteristics of a larger population. Samples are used in statistical testing when population sizes are too large for the test to include all possible members .

Sampling

Sampling is a process used in statistical analysis in which a predetermined number of observations are taken from a larger population. The methodology used to sample from a larger population depends on the type of analysis being performed, but it may include simple random sampling or systematic sampling.

Data

Data as a general concept refers to the fact that some existing information or knowledge is represented or coded in some form suitable for better usage or processing. Raw data ("unprocessed data") is a collection of numbers or characters before it has been "cleaned" and corrected by researchers.

Primary data

It is data that is collected by a researcher from first-hand sources, using methods like surveys, interviews, or experiments. It is collected with the research project in mind, directly from primary sources.

Secondary data:-

It is contrast to primary data. Secondary data is data gathered from surveys, or experiments that have been run by other people or for other research.

Population:-

A population is the entire group that you want to draw conclusions about. The size of the sample is always less than the total size of the population.

Frequency:-

Frequency is the number of occurrences of a repeating event per unit of time. The period is the duration of time of one cycle in a repeating event, so the period is the reciprocal of the frequency.

Frequency distribution

A frequency distribution is a representation, either in a graphical or tabular format, that displays the number of observations within a given interval. The interval size depends on the data being analyzed and the goals of the analyst.

Variable

A variable is any characteristics, number, or quantity that can be measured or counted. A variable may also be called a data item. It is called a variable because the value may vary between data units in a population, and may change in value over time.