

Statistics

The science in which inferences are made about specific random phenomena on the basis of relatively limited sample material.

Biostatistics—analysis of medical, biological and public health data. The methods are applicable to epidemiology, policy, community, environmental health and occupational health.

Descriptive statistics—summarize information

Inferential statistics—make a decision

Variable

A characteristic that takes on different values for different persons, places, or things.

- a. Qualitative – categorized only**
- b. Quantitative – can be measured**
- c. Random – value arises as a result of chance factors**
- d. Discrete – takes only certain values. There are “gaps” between the values. Discrete variables that can take on only two values are called dichotomous.**
- e. Continuous – infinite number of possible values. There are no “gaps”.**

Population

The population is the largest collection of entities in which we are interested and that have a common observable characteristic.

Generally we think of a population as made up of persons or things.

We can also think of a population as the observable characteristic, e.g., blood cholesterol levels of adults living in New Orleans or the ABO blood group of the students at TSPHTM.

Some populations are finite while others are infinite.

A parameter is a characteristic of a population.