الاحصاء - SPSS

المحاضرة الثانية

Sawa University	جامعـــــــة ســـــاوة الاهلية
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2nd Stage .	

المرحلـــــة الثانية.

تدريسي المادة : م.م سلام النجيب

محاضرة رقم ٢

الجانب النظري

Theoretical

Lecture No. 2

Definition of terms:

1. **Biostatistics** – When the different statistical methods are applied in biological, medical and public health data they constitute the discipline of biostatistics.

2. **Descriptive statistics** – One branch of statistics which deals with the description of data in a clear and informative manner using tables and graphs.

3. **Vital statistics** – One branch of descriptive statistics of special relevance in public health (the recording of vital events as they occur). The most important vital events are: births, deaths, marriages. etc.

Definition of terms:

4. **population** (also called source population or target population or reference population) – the entire group of interest, to which the investigators would like to generalize the results of the study, and from which a representative sample is to be drawn.

5. **sample** – A sample is a part of the population.

Collection of Statistical Data

Types of data (Scales of Measurement) Any thing (phenomenon) which takes different values for different individuals or cases, like marital status, blood pressure, age, sex, etc. is called a variable

Variables could be divided into qualitative (or categorical) and quantitative (or numerical variables).

Collection of Statistical Data

Qualitative variable: a variable or characteristic which **cannot be measured** in quantitative form but can only be identified by name or categories, for instance **place of birth**, **ethnic group**, **type of drug**, **stages of breast cancer (I, II, III, or IV), sex, marital status**, etc.

Quantitative variable: A quantitative variable is one that **can be measured** and expressed numerically and they can be of two types, **discrete or continuous**.

- **Discrete variable** is usually whole numbers, such as the number of episodes of diarrhoea in the first five years of life.
- **Continuous variable** is a measurement on a continuous scale. Examples include weight, height, blood pressure, age, etc.

Data Collection

A. Sources of data

The statistical data may be classified under two categories, depending upon the sources.

1) Primary data
2) Secondary data

- Primary Data: are those data, which are collected by the investigator himself/herself for the purpose of a specific inquiry or study.
- Secondary Data: When an investigator uses data, which have already been collected by others, such data are called "Secondary Data". Such data are primary data for the agency that collected them, and become secondary for someone else who uses these data for his/her own purposes.

Data Collection

B. Methods of data collection

Depending on the type of variable and the objective of the study different data collection methods can be employed.

The methods of collecting information may be broadly classified as:

- **Observation,**
- **The documentary sources,**
- **Interviews and**
- **Self-administered questionnaires**.

The choice of methods of data collection is based on:

a) **The accuracy** of information they will yield

b) **Practical considerations**, such as, the need for personnel, time, equipment and other facilities, in relation to what is available.

THANK YOU