INFERENTIAL STATISTICS IV: INFERENTIAL STATISTICS WITH EXCEL AND EPIINFO

Learning Objectives:

- Using Microsoft Excel and EpiInfo to answer statistical questions.
- Using Microsoft Word to present the results.

Problem

A survey research project was carried out to gather information about the influence of A study was conducted in order to investigate the risk factors for diabetes in population aged between 40 and 60 years old in Cluj-Napoca (Diagnostic and Treatment Centre), in 2009 (January-December). The following variables were of interest: SEX (dichotomial), AGE (quantitative continuous), OBESITY (dichotomial: 1 = yes, 2 = no), SMOKING (dichotomial 1 = yes, 2 = no), Systolic blood pressure (quantitative continuous, abbreviated as SBP), Diastolic blood pressure (quantitative continuous, abbreviated as DBP), hypertension (dichotomial 1 = yes, 2 = no, abbreviated as HT, to be displayed), GLYCEMIA (quantitative continuous), DIABETES (dichotomial 1 = yes, 2 = no, to be display). The data were collected prospectively and are given in **DiabetesDB.xlsx** file.

Answer to the following questions using the specified software:
1. Display the HT (column G) and Diabetes (column I) status using dichotomial variable (1 for yes/2 for no). Use the following information:
   a. A person is consider having hypertension IF systolic blood pressure is greater than or equal to 140 OR diastolic blood pressure is greater than or equal to 90.
   b. A person is consider having diabetes IF glycaemia is grater than or equal to 130.
2. Copy the values of whole database into a new Excel file. Rename the sheet as data and save the new Excel file as Excel 97-2003.
3. Open the data with EpiInfo.
4. Create frequencies tables for dichotomial variables.
5. Is smoking most frequent in Male compared with Female?
6. Is obesity most frequent in Male compared with Female?
7. Is the obesity more frequent in persons with diabetes compared with those without diabetes?
8. Is the Hypertension a risk factor for Diabetes?
9. A. Is Obesity a risk factor for Diabetes? B. The results are the same for Male and Female?
10. Is the Diabetes independent or dependent on Obesity?
11. Is the mean of glycaemia different in male and female?
12. Present and interpret the main results by using Microsoft Word. The structure of the document must be according with the request below:
   a. 1st page: title of the presentation, author name (your name), author affiliation (the name of University and the name of Faculty).
   b. 2nd page: Content page (new page): create the contents using Microsoft Word functions.
   c. 3rd page: Presentation of the study: Introduce here the presentation of the study.
   d. 4th to xth page: Summary of results for each request from 5 to 11 with their interpretation.