VIIIth IEA Eastern Mediterranean Regional Scientific Meeting

MODELING INCOMPLETE OBSERVATIONS WORKSHOP

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Date: November 24, 2010 Venue: USJ

Aims of the workshop: Studies usually suffer from missing data, also called incomplete observations, which raise problems of bias and precision for the study results. Theoretically, three situations can be described: First, data may be missing completely at random; Second data may be missing depending on earlier observations or predictor variables; Third data may be missing depending on non observed variables. Each of these situations has a different analytical method. Practically, one must make an assumption about incomplete observations in his study, and then analyze data accordingly. Through this workshop, participants will how to model the effect of incomplete observations in a given study and to appropriately discuss results obtained.

Target audience: Biostatisticians and health professionals with experience in statistical and epidemiological analysis

COURSE OUTLINE

Morning session

9.00 am - 10.00 am: Challenges of incomplete observations analysis

1. Mean estimation: the Slovenian plebiscite (MC)
2. Cross-sectional association coefficient estimation: National Perinatal Study
3. Prognosis estimation: the APROCO cohort (HJG)

10.00 am - 10.30 am : Theoretical approach : Taxonomy of missing data (HJG)

10.30 am - 11.00 pm Coffee Break

11.00 am - 11.30 pm: Methods for missing at random (MAR) data (HJG)

11.30 pm - 12.30 pm Multiple imputation for modeling MAR data

1. MICE algorithm (multiple imputation by chain equations) (MC)
2. Prematurity, previous adverse pregnancy outcome and tobacco in the National Perinatal Study (MC)

12.30 pm - 2.00 pm: Lunch break

Afternoon session

2.00 pm - 3.00 pm Methods for missing not at random (MNAR) data (HJG)

3.00 pm - 3.30 pm MNAR data analyses

Measuring success rate of in vitro fertilization: a shared parameter model (MC)

3.30 pm - 4.00 pm Coffee break

4.00 pm - 5.00 pm Sensitivity analysis of missing not at random Data (MC)

5.00 pm - 5.30 pm A STATA application

Prognosis of very preterm infants: the EPIPAGE cohort study (GB)

For further information, contact Dr Rafic Baddoura at: rbaddoura@usj.edu.lb