UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Healthcare Statistical Evaluation

2122-1-F8203B020

Learning objectives

The aim of the course is to describe the different models of the Health System and the consequent different methods used for the performance evaluation. In particular, the statistical methodologies that are used to evaluate a Health System, as well as the statistical methodologies that each system actor (hospital or another provider) uses to improve its performance. In particular, we will study the ability of simple, multilevel regression models or of other methodologies to analyze systems and performance improvement. To complete the methodology will be also addressed the topic of the graphic representation of the results of the evaluations.

Contents

• The different models of Health Systems and evaluation experiences
• Evaluation of Health Systems with respect to effectiveness, efficiency and customer satisfaction.
• Statistical models used for Systems analysis
• Performance analysis models for single providers
• Reasoned reading of real examples and practical exercises

Detailed program

The objective of the course is to describe the main areas of evaluation of health systems, with reference to the main experiences in progress at national and international level. The course aims to illustrate the statistical methodologies suitable for each evaluation objective, for example, simple and multilevel regression models, as well

as other methods of analysis. During the course, the topic of the graphic representation of the results of the evaluations will be also discussed. The student must acquire the concepts concerning the health systems and their evaluation, the appropriate modeling strategies for the evaluation and the representation of the outcomes.

Prerequisites

None

Teaching methods

Theoretical frontal lessons where the topics of the course are presented with the description of the elements of health policy and economy and the statistical methodologies for the evaluation. During the lesson, concrete cases of evaluation will be presented and discussed.

Assessment methods

Theoretical frontal lessons where the topics of the course are presented with the description of the elements of health policy and economy and the statistical methodologies for the evaluation. During the lesson, concrete cases of evaluation will be presented and discussed.

Textbooks and Reading Materials

Slides presented during the lectures

G. Vittadini (2012), Manuale del Sistema di valutazione della performance degli ospedali lombardi, Aracne editrice, Roma

Snijders, Tom A.B., and Bosker, Roel J.Multilevel Analysis: An Introduction to Basic and Advanced Multilevel Modeling, second edition. London etc.: Sage Publishers, 2012.

Eugene C. Nelson, Paul B. Batalden, Joel S. Lazar Practice-based Learning and Improvement: A Clinical Improvement Action Guide, second edition, Joint Commission Resources, Incorporated, 2007

Semester

Second term - 3 cycle

Teaching language

Italian