



UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

SYLLABUS DEL CORSO

Valutazione Statistica dei Sistemi Sanitari

2627-1-F8205B029

Learning objectives

The objective of the course is the analysis and statistical evaluation of healthcare systems, with particular reference to the Italian case. The course aims to illustrate appropriate statistical and econometric methodologies, including simple and multilevel regression models, as well as methods for analyzing the causal impact of health policies, such as difference-in-differences and regression discontinuity design. By the end of the course, students will be able to understand how healthcare systems are organized, know and apply statistical methodologies for evaluation, and summarize the results of an evaluation.

Contents

- The governance models of the healthcare systems and the evaluation experiences
- The quality evaluation of the healthcare systems.
- The policies evaluation in the health sector by casual inference approaches for quasi-experimental frameworks.
- Competition in healthcare
- Patients' mobility and the impact on the healthcare system
- Practical applications of the evaluation through the STATA software.

Detailed program

The objective of the course is to describe the main areas of evaluation of healthcare systems, with reference to the principal experiences currently in place at the national level, while also considering international cases. The course aims to illustrate appropriate statistical and econometric methodologies, including simple and multilevel regression models, as well as methods for the analysis of health policies, with particular reference to econometric techniques

for impact evaluation.

The course also includes in-depth discussion of the concepts of competition in healthcare and patient mobility across regions, and how these phenomena affect the healthcare system. During the course, the topic of graphical representation of evaluation outcomes will also be addressed.

Students are expected to acquire knowledge of healthcare systems and their evaluation, appropriate statistical strategies, and the ability to process and analyze data through the use of suitable statistical software.

The course is grounded in the scientific literature, enabling students to examine the evolution of knowledge in these areas and to critically assess the current state of the art.

Prerequisites

None

Teaching methods

Theoretical lectures where the course topics are illustrated with a description of the elements of health policy and economics and statistical methodologies for evaluation. Some lectures are provided in lab where the use of the STATA software for application in the field of health evaluation is learnt.

Assessment methods

Oral examination where learning of both the theoretical part and the applied part will be tested. This is a test consisting of questions relating to the theoretical part of the course and the practical part consisting of the discussion of a paper produced by the students and the discussion of a scientific paper.

Non-attending students must contact the teacher to define the exam format.

Textbooks and Reading Materials

- Slides presented during the lectures
- Papers shared in the e-learning page
- 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.
- Angrist, J. D., & Pischke, J. S. (2009). Mostly harmless econometrics: An empiricist's companion. Princeton university press.

Semester

Second term - 4 cycle

Teaching language

Italian

Sustainable Development Goals

GOOD HEALTH AND WELL-BEING | REDUCED INEQUALITIES
