PhD Course

PERFORMANCE ASSESSMENT OF HEALTHCARE PROVIDERS USING MULTILEVEL MODELLING TECHNIQUES

Block course:

18.01.2018: 8:30 am - 05.00 pm

19.01.2018: 8:30 am - 05.00 pm

22.01.2018: 8:30 am - 05.00 pm

Classroom: 4029, Esplanade 36

Course Instructor: Dr. Nils Gutacker/ Dr. Noemi Kreif

Course Value: 5 ECTS

Course Overview: Performance assessment of healthcare providers is now common practice in many healthcare systems. It serves to establish the systematic contribution of a provider to a metric of interest, typically measures of quality of care or resource utilization. The first part of the course will provide an introduction to the role of performance assessment in regulating the behaviour of healthcare providers through financial and non-financial incentives. We will also review methods to set performance standards against which providers can be compared and to adjust for differences in their patient mix. The second part will demonstrate how modern multilevel modelling techniques can be used to conduct performance assessment of providers while account for external production constraints and random variation. The course will offers a mixture of theory and applied sessions, with time dedicated to developing students' own research proposals.

Topics: Information asymmetries, pay-for-performance, linear and non-linear multilevel modelling techniques; Empirical Bayes estimation; risk adjustment and matching techniques.

General literature: The main textbook will be: Snijders, Tom AB and Bosker, Roel J (2012), "Multilevel analysis – an introduction to basic and advanced multilevel modelling", Sage, second edition. Suggested reading list:

1.   Jacobs, R., Smith, P. C. & Street, A. 2006. Measuring Efficiency in Health Care, Cambridge, Cambridge University Press.
2.   Smith, P. C. & Street, A. 2006. Concepts and challenges in measuring the performance of health care organizations. In: JONES, A. M. (ed.) The Elgar Companion to Health Economics. Cheltenham: Edward Elgar Publishing.
3.   Shleifer, A. 1985. A Theory of Yardstick Competition. The RAND Journal of Economics, 16, 319-27.
4.   Goldstein, H. & Spiegelhalter, D. J. 1996. League Tables and Their Limitations: Statistical Issues in Comparisons of Institutional Performance. Journal of the Royal Statistical Society. Series A (Statistics in Society), 159, 385-443.
5.   Rice, N. and A. Jones (1997). Multilevel models and health economics. Health Economics 6(6): 561-575.
6.   Bell, A. & Jones, K. 2015. Explaining Fixed Effects: Random Effects Modeling of Time-Series Cross-Sectional and Panel Data. Political Science Research and Methods, 3, 133-53.

Assessment: Take-home assignment

Teaching language: English

Registration: please send an email to elena.phillips@iqce.eu until XX, 2017.