

**INTRODUCTION TO APPLIED HEALTH ECONOMICS**  
***Methods for the analysis of health care***  
***Cost data***

3 day computer-based course

***Hosted by the Health, Econometrics and Data Group (HEDG),  
University of York, 27<sup>th</sup>-29<sup>th</sup> September 2011***

A three-day course focusing on the use of applied quantitative methods for the analysis of health care cost data. The course is run by the Health, Econometrics and Data Group, a collaboration between the Centre for Health Economics and the Department of Economics and Related Studies at the University of York.

The course is aimed at PhD students and junior researchers or policy makers working in applied health economics.

The course will provide an outline of applied health economics methods used to model health care costs relevant to the analysis of data obtained from administrative or observational sources. Topics to be covered will include linear regression on levels of costs and on transformations of costs, nonlinear models based on exponential conditional means, generalized linear models and extended estimating equations, and more flexible parametric and semi-parametric estimators. The comparative performance of the estimators will also be considered. Throughout the course, computer-based practical exercises will be used to show how these methods can be applied to data using the statistical package Stata.

The aim of the course is to introduce the main techniques used in applied health economics for the analysis of cost data, and to provide practical experience with the application of such techniques. By the end of the course, participants should be able to:

- formulate empirical problems involving health care costs data
- select appropriate econometric models
- understand the different modelling approaches and be able to implement them, using appropriate software
- interpret the results of the analysis

## Course content

The course will cover econometric approaches used by health economists to model health care costs. Sessions will be split between lectures and computer-based practicals. A provisional outline of the course is as follows:

<b>Provisional programme</b>	<b>Morning</b>	<b>Afternoon</b>
<b>Day One</b>	10.00-10.45 Registration Introduction to cost data	Linear regression models and transformations
<b>Day Two</b>	Nonlinear models based on exponential mean functions	Generalized Linear Models and extended estimating equations
<b>Day Three</b>	Extensions to more flexible models for cost data	Recent developments 4.30pm finish

The course will be held in the EXEC/computer-training lab in the Alcuin Research Resource Centre (ARRC: <http://www.york.ac.uk/inst/arrc/> ). The software package used for the practical examples is Stata and each participant will have access to a PC with Stata 11 installed. Stata do-files containing the code required to complete the practical exercises will be provided. A basic familiarity with Stata will be an advantage. Further information on Stata can be found at: <http://www.stata.com/>

Data sources relevant to the practical exercises will be provided.

## The programme

The course will be provided by members of HEDG.



**REGISTRATION FORM**  
**Methods for the analysis of health care  
cost data**

*A short course hosted by the Health, Econometrics and Data Group (HEDG),  
University of York, 27<sup>th</sup>-29<sup>th</sup> September 2011*

Participation on the course is free of charge. Please note places are limited. A list of local accommodation in York will be provided and participants are asked to make their own arrangements. Limited funds will be made available to reimburse reasonable travel expenses.

Please note places for this course are limited to 30 participants.

Title: Dr/Ms/Mr \_\_\_\_\_

Name: \_\_\_\_\_

Position: \_\_\_\_\_

Organisation: \_\_\_\_\_

Postal Address: \_\_\_\_\_

Postcode: \_\_\_\_\_

Email: \_\_\_\_\_

Tel: \_\_\_\_\_ Fax: \_\_\_\_\_

***Please post or fax your registration forms to:***

Kerry Atkinson, Course Administrator, Centre for Health Economics, Alcuin A Block,  
University of York, Heslington, YORK, YO10 5DD, UK, Fax: +44 (0) 1904 321402.

Alternatively online registration will be available shortly:

<http://www.york.ac.uk/res/herc/research/hedg/index.htm>

*The Health, Econometrics and Data Group is supported by funding from the  
Economic and Social Research Council under the grant RES-060-25-0045.*