

Latest news

Pedro Saramago Goncalves

was awarded with the prize of best student paper at the 11th Portuguese Health Economics Conference held in Porto in October 2009. The award winning paper is related to Pedro's MSc thesis



entitled 'Using Multicentre RCT-based IPD to Populate Decision Analytic CE Models for Location-Specific Decision Making: a Bayesian Approach', supervised by Dr. Andrea Manca.

Courses

Advanced Modelling Methods Regression Methods

Both courses to be held at CHE, University of York in March 2010.

For more information about these and other courses, visit our website page at

www.york.ac.uk/inst/che/training/index.htm

Appointment of Chair or Reader

CHE is seeking to complement its existing research strengths by recruiting a Professor or Reader with extensive research experience in health economics. The post-holder will develop a programme of research to add to the work of existing research teams at CHE. Applications from candidates with research interests which diversify the Centre's current portfolio would be welcomed.

http://www22.i-grasp.com/fe/tpl_YorkUni01.asp?

Welcome to the seventh edition of the Centre for Health Economics electronic newsletter. The objective of the newsletter is to keep policy makers, researchers and practitioners informed about recent developments at the Centre, including completed research and forthcoming events. For further information see www.york.ac.uk/inst/che

New Director for CHE : Maria Goddard

I am extremely proud and thrilled to be taking over as Director of CHE. It is a sign of advancing age that I recall quite clearly doing my Masters degree in Health Economics here at the University of York many years ago and I never imagined then that I would later be in the fortunate position of taking on this important role. I am greatly indebted to Peter Smith who has left a fantastic legacy for the new director to inherit and this will certainly help to smooth the way for me as I take up the reins.



The research undertaken in CHE has a major impact on policy, practice and the public. The Queen's Anniversary Prize, won by the University for health economics research last year, provided external recognition of these achievements and was a testimony to the tremendous expertise and efforts of everyone who has contributed to health economics research at York, research and support staff, both past and present. There are certainly a number of challenges ahead for us, including the constrained funding environment which is likely to affect the research community for a number of years. However, I will strive to ensure that the environment in which we work encourages talent to flourish, continues to support the highest quality research that addresses important and challenging questions in society, and enables us to make a contribution to the welfare of citizens.

Modelling opportunity in health

Pedro Rosa Dias

Health inequalities in the UK remain striking with adult death rates on average 2.5 times higher in the most deprived areas of the country than in the most prosperous. Poor health continues to correlate closely with deprivation, poor employment and educational opportunities. Yet the extent to which health disparities should be considered 'unfair' is an open question, since these are due to social and environmental factors and to individual lifestyles and free choice. This research aims to better understand the contribution that socioeconomic background and individual lifestyle choices make to health disparities and to inform the extent to which observed inequality in the UK can be considered 'unfair'.



This key question is addressed using John Roemer's framework of inequality of opportunity. The framework categorises the determinants of health in adulthood into two groups. The first represents *circumstances*, such as parental social class, parental education and the incidence of childhood morbidities which, by being beyond individual control, are considered the causes of unfair inequalities.

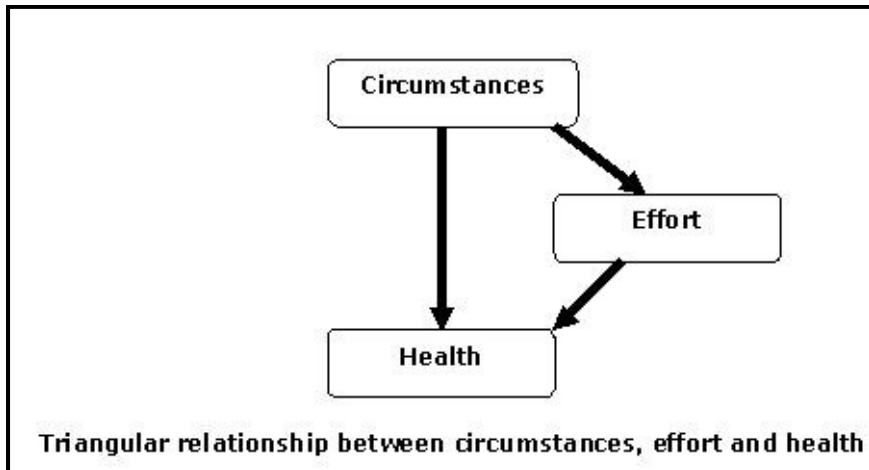
Modelling opportunity in health (continued)

The second represents *effort factors* including lifestyle choices such as cigarette smoking, alcohol consumption and diet. Individuals are held at least partially responsible for these and hence they constitute a source of legitimate health inequality. Since circumstances may affect health outcomes directly

and indirectly, through their impact on effort, this establishes a triangular relationship between circumstances, effort and health.

The paper proposes a behavioural model of inequality of opportunity which integrates this framework with the Grossman model of health capital and the demand for health. We use data from the National Child Development Study (NCDS), a cohort study that follows 17,000 individuals born in Great Britain during the week of 3rd March 1958, from birth up until age 46. Extensive information is available on each individual's childhood *circumstances* (parental socioeconomic background, childhood health, obesity and presence of hereditary diseases in the family) and *effort factors* such as cigarette smoking, alcohol consumption and dietary choices. This allows an examination of the relationship between these potential causes of inequality and a series of adult health outcomes.

The results indicate the existence of considerable inequality of opportunity in health among members of the NCDS cohort. After controlling for childhood health, a range of health-related lifestyles, educational attainment and own social class in adulthood, individuals whose father was in the top occupational category in 1958 are 5.7 percentage



Triangular relationship between circumstances, effort and health

points more likely to report excellent health at age 46 than those whose father was in the bottom social class. Inequality of opportunity is much greater for women than for men and the impact of parental socioeconomic background on the health of adult women is larger than the effect of

their own social class in adulthood. This is not the case for men, whose health at age 46 depends mainly on their health in childhood and adolescence and own social class in adulthood. Further, the health-related lifestyles of adult women are influenced strongly by their parental background and much more so than those of men of the same age.

A key result is that circumstances affect health in adulthood both directly and through their impact on effort factors. This is best illustrated by looking at the role of education which exhibits a strong effect on health through lifestyles. This suggests that in order to reduce inequalities of opportunity in health, government policy will, in part, need to focus outside the health care system, particularly in the education sector.

Pedro Rosa Dias is a Research Fellow in the Centre for Health Economics working in the Health, Econometrics and Data Group. The research described above was awarded the iHEA prize for best student paper. Further details of this work can be found at

<http://ideas.repec.org/p/yor/hectdq/08-18.html>

Commissioning and system reform

Mark Dusheiko, Maria Goddard, Hugh Gravelle and Rossella Verzulli



Recent NHS policy initiatives such as payment by results (PbR) and patient choice increase the ability of patients and commissioners to 'shop around' amongst secondary care providers. Policy has sought to encourage a mixed supply of care involving new providers from the private and public sector. If commissioners make use of a broader range of providers, this will be reflected in the pattern of their referrals for elective care. The

introduction of PbR means that commissioners have an incentive, for those conditions covered by the tariff, to take advantage of new providers by directing money where patients choose to go.

We used Hospital Episode Statistics (HES) from 1997/98 to 2007/08 to look at elective admissions at NHS and private providers, linking them with the commissioning organisations (accounting for major shifts in their size and geographical boundaries)

Geographical variations in quality of life: Are public service organisations able to influence them? (continued)

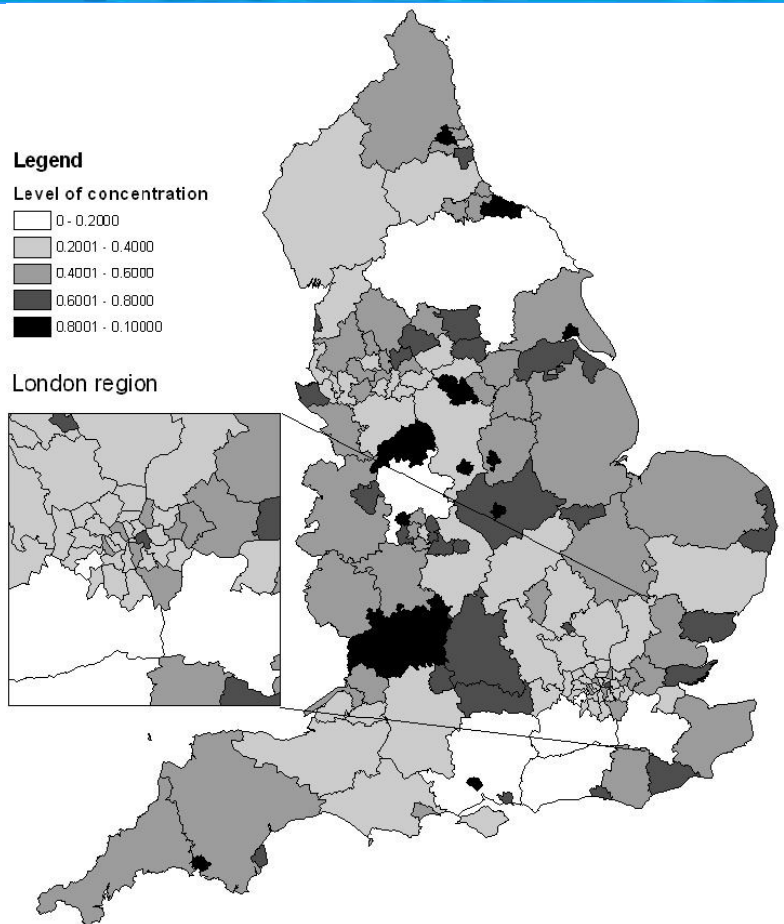
and also controlling for changes made on the provider side such as hospital mergers.

We considered the number and type of providers used and constructed measures of concentration of hospital use which capture the degree to which elective admissions are concentrated in hospitals – less concentration means that commissioners are using a wider range of hospitals to serve their patients.

Our analysis looked at trends over time, across PCTs and by type of condition (Health Resource Groups). An illustration of the results across PCTs is given below where the maps show the concentration of commissioning using one of our measures (the Herfindahl Index of concentration). Map 1 shows the variation in concentration geographically (for 152 PCTs in 2007/8), where the lighter areas are less concentrated than the darker areas.

Map 2 shows the changes in concentration between 2002/03 and 2007/08. Many areas have experienced a reduction in concentration, whilst parts of the North West, Midlands, East Anglia and South West have experienced an increase.

Whatever the measures of concentration, a pattern emerges which, although not very pronounced, suggests that commissioning has generally become less concentrated over the last few years, more



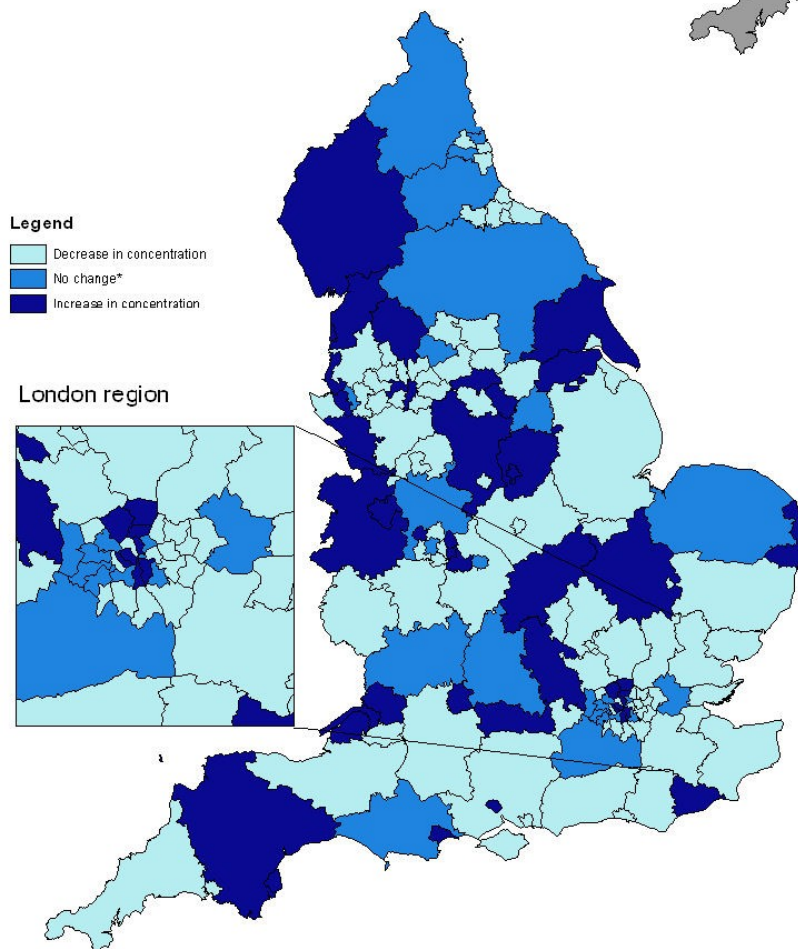
Map 1. Concentration levels (Herfindahl Index) in year 2007/08

providers are used, and the dependence of PCTs on their main hospital has declined, although there have been increases in concentration in the earlier years of policy reform. There are variations across the country and by type of condition. Those HRGs chosen for the early operation of the national tariff appear to have generated greater shifts in commissioning, albeit with a time lag, perhaps as the supply side of the system responded.

However, it is difficult to attribute the changes to particular reforms and more detailed econometric analysis which is underway will shed more light on these issues. Moreover, we cannot draw conclusions about the ultimate impact on patients and taxpayers. This depends crucially on whether the shifts in admissions have brought gains in terms of improved quality, convenience and value for money. Some of these issues will be considered in our future work, along with the impact of other reforms such as Practice Based Commissioning.

Details of the methods and the full set of results can be found in:

<http://www.york.ac.uk/inst/che/pdf/CommissioningPolicyBriefingfinal.pdf>



Map 2. Increase/decrease in concentration from 2002/03 to 2007/08

*No change: the difference in concentration between 2002/3 and 2007/8 is less than ± 100 .

Publications

Bojke L, Claxton K, Sculpher M, Palmer S. Characterizing structural uncertainty in decision-analytic models: a review and application of methods. *Value in Health*. 2009;12:739-49.

Castelli A, Jacobs R, Goddard M, Smith P. Geographical variation in quality of life: The role of public service organisations. Policy Briefing, Centre for Health Economics, University of York; 2009

Chambers D, **Epstein D, Walker S**, Fayter D, Paton F, Wright K, et al. Endovascular stents for abdominal aortic aneurysms: a systematic review and economic model. *Health Technol Assess* 2009;13(48)

Cooke D, Hurel SJ, Casbard A, Steed L, **Walker S**, Meredith S, Nunn AJ, **Manca A, Sculpher M** et al. Randomized controlled trial to assess the impact of continuous glucose monitoring on HbA1c in insulin-treated diabetes (MITRE Study). *Diabetic Medicine*. 2009;26(5):540-7.

Epstein D, Bojke L, Sculpher M & the REFLUX trial group. The cost-effectiveness of laparoscopic fundoplication versus medical management for gastro oesophageal reflux disease. *BMJ* 2009;338:b2576.

Epstein D, Jimenez Rubio D, **Smith PC**, Suhrcke M. Social determinants of health: an economic perspective. *Health Economics* 2009;18:495-502.

Epstein D. Is EVAR worth the price difference? In: Greenhalgh R, editor. *Vascular and Endovascular Controversies Update 31*. London: Biba Medical; 2009

Epstein D. Opportunity cost. In: *Encyclopedia of Medical Decision Making*: Sage Publications; 2009.

Griffin S, Dunn G, **Palmer S**, Macfarlane S, Brent S, Dyker A, et al. The use of paclitaxel in the management of early stage breast cancer. *Health Technology Assessment*: 2009;13(s1):15-22.

Manca A. Economic evaluation of medical devices and drugs - same or different? (Editorial). *Value in Health*. 2009;12(4):401

Newman SP, Cooke D, Casbard A, **Walker S**, Meredith S, Nunn A, Steed L, **Manca A, Sculpher M**, et al. A randomised controlled trial to compare minimally invasive glucose monitoring devices with conventional monitoring in the management of insulin-treated diabetes mellitus (MITRE). *Health Technology Assessment* 2009;May;13(28):iii-iv, ix-xi, 1-194.

Sculpher MJ, Lozano-Ortega G, Sambrook J, **Palmer S**, Ormanidhi O, Bakhai A, et al. Fondaparinux versus Enoxaparin in non-ST-elevation acute coronary syndromes: short-term cost and long-term cost-effectiveness using data from the Fifth Organization to Assess Strategies in Acute Ischemic Syndromes Investigators (OASIS-5) trial. *American Heart Journal*. 2009;157:845-52.

Siciliani L, Gravelle H. Third degree waiting time discrimination: optimal allocation of a public sector healthcare treatment under rationing by waiting. *Health Economics* 2009;18:977-86.

Siciliani L. Paying for performance and motivation crowd-ing out. *Economics Letters* 2009;103:68-71.

Smith PC, Goddard M. The English National Health Service: an economic health check. *Report for Organisation for Economic Co-operation and Development ECO/WKP58 July*; 2009.

Zucchelli E. Income-related health inequalities in Italy and in the rest of Europe: an empirical analysis using SHARE In: Brandolini A, Saraceno C, Schizzerotto A, editors. *Dimensioni della disuguaglianza in Italia: poverta, salute, abitazione (Dimensions of inequality in Italy: poverty, health housing)*. Bologna, il Mulino; 2009 (in Italian).

Conference, seminar and workshop presentations

Staff from CHE attended the 7th World Congress on Health Economics, held in Beijing in July and organised by the International Health Economics Association. **Laura Bojke, Pedro Rosa Dias, Silvana Robone, Maria Goddard and Peter Smith** presented a number of papers and **Pedro Rosa Dias** was awarded the prize for the best student paper of the conference.

Adriana Castelli, Mauro Laudicella, Andrew Street and Padraic Ward presented Getting out what we put in: how productive is the NHS in England? at the July 2009 *Health Economics Study Group Meeting* in Sheffield.

Mike Drummond taught on a short course 'Transferability of cost-effectiveness data between countries' at the 2nd Latin American International Society for Pharmacoeconomics and Outcomes Research conference held in Rio de Janeiro in September, followed by moderating the opening plenary session.

At the European Health Policy Forum 'Financial Crisis and Health Policy' held in Gastein, Austria, 30 September-2 October, Mike addressed the issues of 'Engaging stakeholders in health technology assessment' and 'Challenges in assessing the economic value of health technologies'.

Roy Carr-Hill has been teaching research methods in Syria on a Masters Course in Health Economics, and has just been appointed Director of Studies on the same course for next year. He has also been invited onto an expert panel to review research programmes for Water Aid to provide water and sanitation services to small towns in Africa.

CHE Research Papers

CHE has a research paper series which gives early release of research findings. The following have recently been published and are free to download

www.york.ac.uk/inst/che/publications/publicationsbyyear.htm

RP49 What explains variation in the costs of treating patients in English obstetrics specialties?—**Mauro Laudicella**, Kim Rosen Olsen, **Andrew Street**

RP50 Payment by results in mental health: A review of the international literature and an economic assessment of the approach in the English NHS—**Anne Mason, Maria Goddard**

RP51 MRC-NICE scoping project: identifying the National Institute for Health and Clinical Excellence's methodological research priorities and an initial set of priorities—Louise Longworth, **Laura Bojke**, Jonathan Tosh, **Mark Sculpher**

RP52 An economic framework for analysing the social determinants of health and health inequalities—**David Epstein**, Dolores Jiménez-Rubio, **Peter C Smith**, Marc Suhrcke

RP53 Budget allocation and the revealed social rate of time preference for health—**Mike Paulden, Karl Claxton**

Next CHE Seminar

Date: Thursday, 3rd December **Time:** 2:00pm to 3:15pm

Venue: ARRC Auditorium

Speaker: Prof. John Cairns, London School of Hygiene & Tropical Medicine

Title: Inconsistent health state valuations

For further details on the CHE Seminar series, and the series of specialist seminars in economic evaluation, go to our website

www.york.ac.uk/inst/che/seminars/index.htm