



Centre For Health Economics

Health Economics News

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www.york.ac.uk/che

Welcome to the CHE Newsletter

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Constant growth in NHS productivity

Research team: Chris Bojke, Adriana Castelli, Rosalind Goudie, Andrew Street, Padraic Ward

Using the most detailed and comprehensive information available to compare growth in the total amount of resources (input) used to produce health care provided to NHS patients (output), we conclude that the productivity of the NHS in England has been broadly flat over the last seven years, increasing by an average of 0.1% per year.

The research shows that between 2003/4 to 2009/10 there have been increases in all inputs including number of staff, buildings, equipment and clinical supplies. There has been a corresponding increase in the quantity of outputs in terms of number of patients treated in hospital, outpatient attendances, community care and primary care consultations. Quality has also increased as measured by hospital survival rates for both elective and non-elective patients and also by reductions in average inpatient and outpatient waiting times.

All in all, growth in activity and changes in quality have tracked the growth in inputs, implying that productivity has been flat over the seven year period.

Full report CHE research paper 76 www.york.ac.uk/che/publications

Alan Williams Fellowships - Call for applications

Applications are invited from researchers, at any stage of their career, wishing to visit the Centre for Health Economics. The value of the fellowship is £5,000, intended as a contribution towards living and travel expenses associated with the visit.

CHE re-launched the Alan Williams Fellowships scheme in 2011. The Fellowships were first launched in 2006 as a tribute to Alan Williams and to enable health economists from anywhere in the world to spend time in CHE.

Deadline for applications is 22 June 2012.

Further information: www.york.ac.uk/che/publications

The importance of prognosis in identifying cost-effective treatment for early breast cancer

Research team: Helen Campbell (HERC, University of Oxford), David Epstein (CHE), David Bloomfield (Sussex Cancer Centre), Susan Griffin, Andrea Manca, Mark Sculpher (CHE).

In the treatment of early breast cancer, surgery is often followed by adjuvant chemotherapy: the use of drugs to reduce the risk of disease recurrence.

Patients differ in their risk of recurrence due to other factors relating to progression and treatment. Consequently, the magnitude of the health outcomes and costs achieved by using a particular chemotherapy regimen differs between patients.

Over time chemotherapy has advanced, but improved effects on recurrence come at a cost when new regimens



are expensive and more toxic.

Using a Markov model we produced the first simultaneous cost-effectiveness comparison of all potential adjuvant chemotherapy regimens, including the option to not use chemotherapy, for all types of patient. Second and third generation chemotherapy regimens seemed cost-effective for different types of women, according to the risk of recurrence, and for some older lower risk women, a policy of no chemotherapy appeared cost-effective.

For more information see: www.ww.com

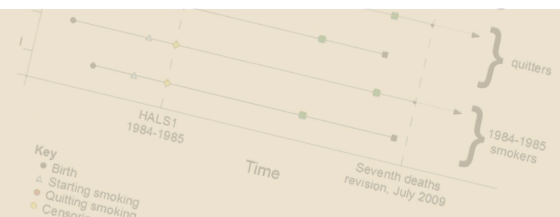
Incorporating health inequality concerns into cost-effectiveness analysis

On 12 March 2012, Susan Griffin, Richard Cookson, Miqdad Asaria and Mark Sculpher organised a workshop in York to discuss a project (funded by the National Institute of Health Research (NIHR) Public Health Research programme) which focuses on a key issue in cost-effectiveness analysis – how best to incorporate health inequality issues. Attendees included academics and policy makers with interests in income inequalities, health inequalities, public health and cost-effectiveness analysis.

The presentations described a proposed analytical framework for combining both equity and efficiency concerns into cost-effectiveness analysis in a way that makes transparent all the value judgements required to make such an approach possible. The group discussed the theoretical framework and also explored experience based on research using specific case studies.

A guest presentation on 'Inequality with ordinal data' was delivered by Frank Cowell, Professor of Economics, London School of Economics.

More information on the workshop including all key documents can be found at: www.ww.com



Duration modelling versus lifetime incidence of cancer

Researcher: Daniel Howdon

Much of the existing literature on socioeconomic inequalities in the development of cancer focuses on lifetime incidence, rather than age at development (healthy life-years without cancer). Such approaches tend to find no significant socioeconomic inequalities in the disease after lifestyle characteristics, particularly smoking, are accounted for. Our approach adopts duration modelling, using the Health and Lifestyle Survey and its most recent follow-up, in order to model age at development, and compares these results with a lifetime incidence model using the same dataset. We show that, independent of smoking behaviours, while those in lower social classes develop cancer at roughly the same rate over their lifespan as those in higher social classes, they on average suffer from the disease significantly earlier in life.

HEDG working paper 12/06: www.ww.com

Staff news

Report on MSc summer placement in CHE by Mohammad Al-Sharayri

'Last summer I undertook a three month placement at CHE undertaking a review of the methods



applied to the economic evaluation of social care interventions. CHE was my first choice, due to its international reputation for high quality research. The reality of my placement surpassed my expectations, both in terms of the academic environment and the warm

welcome received. I was encouraged to participate fully in the project that I joined, including undertaking analysis, writing a dissertation, organising a workshop and presenting my work. My supervisors worked alongside me and provided valuable guidance that enriched my dissertation. Overall, the placement was a wonderful experience.'

Mohammad now works for the Royal Medical Services in Jordan and is currently undertaking research to measure Health-Related Quality of Life using the EQ-5D in patients with diabetes. His placement in CHE was supervised by Helen Weatherly and

Rita Faria.

CHE will host 5 students on placement this summer.

Andrea Manca

has been appointed as member of the Technology Appraisal Committee of the National Institute for Health and Clinical



Excellence for the next three years.

Conference and workshop presentations

In January, **Mike Drummond** attended a meeting in London of the CONSORT Group to discuss the reporting of quality of life data in clinical trials. At a conference in Milan in February on *Sustaining and Implementing Universal Health Coverage: 4 Perspectives for 5 Continents*, he spoke about: Assessing the Added Value of Health Technologies: Reconciling Different Perspectives.

Richard Cookson gave a talk on "Competition and equity – experience from the UK" at the TILEC-Tranzo conference "Does competition in healthcare harm solidarity?", Tilburg, Netherlands, 26 January 2012.

Rowena Jacobs presented a paper (joint with Mason, Kim and Verzulli) on "Variations in efficiency in mental health services in the English NHS" at the World Psychiatric Association Conference in Granada, Spain, February 2012. She was also invited to give a talk to Medi-Clinic Southern Africa in Cape Town on "The economics of funding flows in the English NHS: Payment by Results (PbR)" in January 2012. She also gave a training session, joint with a psychiatrist, for The Retreat Hospital in York on "Payment by Results (PbR) for mental health services" in December 2011.

Andrew Street gave a talk on NHS Productivity to the Association of Clinical Pathologists, London on 23 February 2012 and was a course tutor on Patient Classification Systems International Winter School, Dublin; 12-16 March 2012.

Bernard van den Berg participated in a meeting of the Health Foundation "Personal health budgets: learning lessons from the Dutch experience", 12 December 2011 in London.

New funding

Do higher primary care practice performance scores predict lower rates of emergency admissions for persons with serious mental illness? An analysis of secondary panel data. **Rowena Jacobs, Maria Goddard, Anne Mason, Hugh Gravelle**, Simon Gilbody, Rachel Richardson, Tony Kendrick & June Wainwright.

Funder: the National Institute for Health, Research Service Delivery and Organisational Programme.

Courses

York expert workshops in the socio economic evaluation of medicines:

Quality of life workshop

Wednesday 27 June - Friday 29 June 2012

Foundations workshop

Monday 2 July - Friday 6 July 2012

Advanced workshop

Monday 9 July - Friday 13 July 2012

Introduction to measuring efficiency in public sector organisations: analytical techniques and policy:

Tuesday 16 October - Friday 19 October 2012

Further details: www.nhs.uk

Latest CHE research papers

CHERP71 Estimating the costs of specialised care: updated analysis using data for 2009/10 - **Silvio Daidone and Andrew Street**

CHERP72 Keep it simple? predicting primary health care costs with measures of morbidity and multimorbidity - Samuel L Brilleman, **Hugh Gravelle**, Sandra Hollinghurst, Sarah Purdy, Chris Salisbury and Frank Windmeijer

CHERP73 Modelling individual patient hospital expenditure for general practice budgets - **Hugh Gravelle, Mark Dusheiko**, Steve Martin, Pete Smith, **Nigel Rice** and Jennifer Dixon

CHERP74 Analysing hospital variation in health outcome at the level of EQ-5D dimensions - **Nils Gutacker, Chris Bojke, Silvio Daidone**, Nancy Devlin and **Andrew Street**

CHERP75 Twenty years of using economic evaluations for reimbursement decisions. What have we achieved? - **Michael Drummond**

CHERP76 Productivity of the English National Health Service 2003-4 to 2009-10 - **Chris Bojke, Adriana Castelli, Rosalind Goudie, Andrew Street** and **Padraic Ward**

CHERP77 Coverage with evidence development, only in research, risk sharing or patient access scheme? A framework for coverage decisions - **Simon Walker, Mark Sculpher, Karl Claxton** and **Steve Palmer**

All CHE research papers can viewed online at our website: www.nhs.uk

Allen P, Keen J, Wright J, Dempster PG, Townsend J, Hutchings A, **Street A, Verzulli R**. Investigating the governance of autonomous public hospitals in England: multi-site case study of NHS Foundation Trusts. *Journal of Health Services Research and Policy* 2012;DOI:10.1258/jhsrp.2011.011046.

Bojke C, Castelli A, Laudicella M, **Street A, Ward P**. Regional variation in the productivity of the English National Health Service. *Health Economics* 2012;DOI:10.1002/hec.2794.

Bojke L, Spackman E, Hinde S, Helliwell P. Capturing all of the costs in NICE appraisals: the impact of inflammatory rheumatic diseases on productivity. *Rheumatology* 2012;doi10.1093/rheumatology/ker348.

Bower P, Kennedy A, Reeves D, **Richardson G**. A cluster randomised controlled trial of the clinical and cost-effectiveness of a "whole-systems" model of self management support for the management of long term conditions in primary care: trial protocol. *Implementation Science* 2012;7:7(January).

Brown S, **Ortiz-Nuñez A**, Taylor K. Parental risk attitudes and children's academic test scores: evidence from the U.S. panel study of income dynamics. *Scottish Journal of Political Economy* 2012;59(1):47-70.

Burton C, **Richardson G**, Sharpe M. Healthcare costs incurred by repeated referral of patients with medically unexplained symptoms to secondary medical care. *Journal of Psychosomatic Research* 2012;72(3):242-7.

Cookson R, Dawson D. Hospital competition and patient choice in publicly funded health care. In: Jones AM, editor. *The Elgar Companion to Health Economics* (2nd Edition) Cheltenham: Edward Elgar;IV;20.

Cookson R, Laudicella M, Li Donni P, **Dusheiko M**. Effects of the Blair/Brown health reforms on socioeconomic equity in health care. *Journal of Health Services Research and Policy* 2012;17(Suppl1):55-63.

Cooper NJ, Kendrick D, Achana F, Dhiman P, He Z, Wynn P, Le Cozannet E, **Saramago P**, Sutton A. Network meta-analysis to evaluate the effectiveness of interventions to increase the uptake of smoke alarms. *Epidemiologic Reviews* 2012;34(1):32-45.

Culyer AJ. Hic sunt dracones: the future of Health Technology Assessment - one economist's perspective. *Medical Decision Making* 2012;32:E25-E32.

Drummond MF, Towse A. Is it time to reconsider the role of patient co-payments for pharmaceuticals in Europe? *European Journal of Health Economics* 2012;13:1-5.

Ford JA, Waugh N, Sharma P, **Sculpher MJ**, Walker A. NICE guidance: a comparative study of the introduction of the single technology appraisal process and comparison with guidance from Scottish Medicines Consortium. *BMJ Open* 2012;2(1) doi:10.1136/bmjopen-2011-000671.

Garber AM, **Sculpher M**. Cost-effectiveness and payment policy. In: Pauly MV, McGuire TG, Barros PP, editors. *Handbook in Health Economics*. Oxford: Elsevier; 2012.

Joyce VR, Barnett PG, Chow A, Bayoumi AM, **Griffin S**, Sun H, Holodniy M, Brown ST, Kyriakides TC, Cameron DW, Youle M, **Sculpher M**, Anis AH, Owens DK. Effect of treatment interruption and intensification of antiretroviral therapy on health related quality of life in patients with advanced HIV: a randomized, controlled trial. *Medical Decision Making* 2012;32(1):70-82.

Martin R, Muñls M, **de Preux L**, Wagner U. Anatomy of a paradox: management practices, organizational structure and energy efficiency. *Journal of Environmental Economics and Management* 2012;63(2)208-223.

Martin S, **Rice N**, Smith PC. Comparing costs and outcomes across programmes of healthcare. *Health Economics* 2012;21(3):316-337.

Maund E, Craig D, Suekarran S, Neilson AR, Wright K, Brealey S, Dennis L, Goodchild L, Hanchard N, Rangan A, **Richardson G**, Robertson J, McDaid C. Management of frozen shoulder: a systematic review and cost-effectiveness analysis. *HTA Report* 09/13/02 2012.

McKenna C, Maund E, Sarowar M, Fox D, Stevenson M, Pepper C, Woolacott N, **Palmer S**. Dronedrone for the treatment of atrial fibrillation. A NICE Single Technology Appraisal. *Pharmacoeconomics* 2012;30(1):35-46.

O'Reilly J, Busse R, Häkkinen U, Or Z, **Street A**, Wiley M. Paying for hospital care: the experience with implementing activity-based funding in five European countries. *Health Economics Policy and Law* 2012;7:73-101.

Pitman RL, White LJ, **Sculpher MJ**. Estimating the clinical impact of introducing paediatric influenza vaccination in England and Wales. *Vaccine* 2012;30:1208-24.

Revill P, Sculpher MJ. Cost effectiveness of interventions to tackle non-communicable diseases. *British Medical Journal* 2012;344:d7883.

Rice N, Robone S, Smith P. Vignettes and health systems responsiveness in cross-country comparative analyses. *The Journal of the Royal Statistical Society* 2012;175(2):1-21.

Schut FT, **Van den Berg B**. Long-term care insurance in the Netherlands. In: Costa-Font J, Courbage C, editors. *Financing long-term care in Europe*. Palgrave; 2012.

Sculpher MJ, Claxton K. Real economics needs to reflect real decisions: a response to Johnson. *Pharmacoeconomics* 2012;30:133-6.

Siciliani L, Sivey P, **Street A**. Differences in length of stay between public hospitals, treatment centres and private providers: selection or efficient practice? *Health Economics* 2012;DOI:10.1002/hec.1826.

Smith PC, **Street A**. Concepts and challenges in measuring the performance of health care organizations. In: Jones A, editor. *Elgar Companion to Health Economics: Second Edition*: Edward Elgar, Cheltenham; 2012: 341-9.

Smith PC, **Street A**. Using patient reported outcome measures. *Health Economics* 2012;DOI: 10.1002/hec.2793.

Soares MO, Welton NJ, Harrison DA, Peura P, Hari MS, Harvey SE, Madan JJ, Ades AE, **Palmer SJ**, Rowan KM. An evaluation of the feasibility, cost and value of information of a multicentre randomised controlled trial of intravenous immunoglobulin for sepsis (severe sepsis and septic shock): incorporating a systematic review, meta-analysis and value of information analysis. *Health Technology Assessment* 2012;16(7).

Van Dijk CE, **Van den Berg B**, Verheij RA, Spreuuenberg P, Groenewegen PP, De Bakker DH. Moral hazard and supplier-induced demand: empirical evidence in general practice. *Health Economics* 2012;DOI:10.1002/hec.2801.

Yang H, Craig D, **Epstein D, Bojke L**, Light K, Bruce I, **Sculpher M**, Woolacott N. Golimumab for the treatment of psoriatic arthritis: A NICE Single Technology Appraisal. *Pharmacoeconomics* 2012;30:257-70.

Zucchelli E, Harris M, Zhao X. Ill-health and transitions to part-time work and self-employment among older workers. *Health Economics and Data Group (HEDG), University of York* 2012; working paper 12/04.; 2012.