



Centre For Health Economics

Health Economics News

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Welcome to the CHE Newsletter

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How much is patients' time worth?

Research Team: Bernard van den Berg (CHE), Amiram Gafni (McMaster University) and France Portrait (VU University)

Patients' time is often ignored in economic analyses of health care interventions. This omission may lead to biased results and inappropriate policy recommendations, which may eventually influence patients' health, wellbeing and welfare. In order to include the time of patients in economic analyses, it is necessary to value it.

In our study, we examined a range of different types of time spent by the patient in relation to receiving health care treatment. We distinguished between time to admission, travel time, waiting time, and treatment time. Time to admission is the time between the first referral and the moment that the treatment actually starts. Travel time is the time that a patient needs to travel between the place where they live and the medical care centre where the patient is treated. Waiting time is the time that the patient waits at the medical care centre before treatment. Treatment time is the time spent getting active treatment, for example seeing a doctor or a nurse.

The study is the first example of applying our survey approach to valuing time and we did this in a sample of patients in the Netherlands who were not participating in the labour market. The results show that the monetary value of waiting time was the highest (£25 per hour) and that travel and treatment time were equally valued (£11.43 and £11.54 per hour, respectively).

Our project aimed to develop a contingent valuation survey. The survey questions are presented in *Attributing a monetary value to patients' time: a contingent valuation approach*. Centre for Health Economics, University of York. CHE Research Paper 90: 2013. [www](http://www.york.ac.uk/che/publications)

Funder: We gratefully acknowledge The Netherlands Organization for Health Research and Development (Zon-MW) for their funding (Grant number 152002032).

CHE's latest Research Papers

CHERP91 *Distributional cost-effectiveness of health care programmes* - Miqdad Asaria, Susan Griffin, Richard Cookson, Sophie Whyte, Paul Tappenden

CHERP92 *Distributional cost-effectiveness analysis: a tutorial* - Miqdad Asaria, Susan Griffin, Richard Cookson

CHERP93 *The influence of cost-effectiveness and other factors on NICE decisions* - Helen Dakin, Nancy Devlin, Yan Feng, Nigel Rice, Phill O'Neill, David Parkin

CHERP94 *Productivity of the English National Health Service from 2004/5: updated to 2011/12* - Chris Bojke, Adriana Castelli, Katja Grasic, Andrew Street

CHERP95 *Network meta-analysis of (individual patient) time to event data alongside (aggregate) count data* - Pedro Saramago, Ling-Hsiang Chuang, Marta Soares

All papers free to download here [www](http://www.york.ac.uk/che/publications)

NHS productivity growth

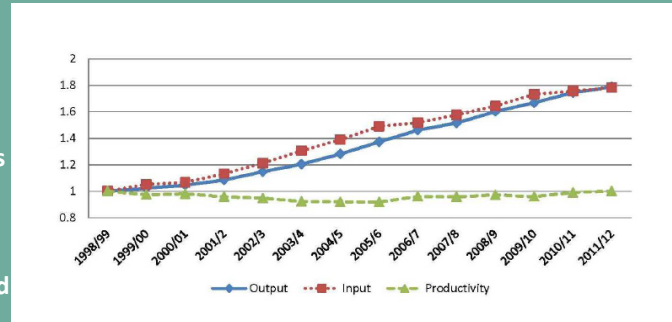
Research team: Chris Bojke, Adriana Castelli, Katja Grasic, Andrew Street.

NHS productivity in England increased by 2.1% between 2010/11-2011/12, following growth of 3.2% between 2009/10-2010/11. This is the first time since the late 1990s that there have been two successive years of positive productivity growth in the NHS.

Since 1998/99, there have been substantial increases in NHS activity and the quality of care has improved. There has been a 68% increase in hospital output and post discharge survival rates have improved year-on-year. There has been a 130% increase in outpatient attendances, 24% growth in primary care consultations and 126% increase in prescribing.

Increased NHS output has come about in response to substantial increases in NHS expenditure since the late 1990s. This has funded both increased wages as well as more staff and resources devoted to the health system.

Output growth and input growth track each closely (see figure). Between 1998/9 and 2003/4, productivity growth was negative, with input growth exceeding growth in outputs. Between 2004/5 and 2009/10, output growth lagged slightly behind input growth. Productivity growth has been positive since 2009/10: while annual output growth has been lower than in previous years, input growth has been lower still. Over the full period, between 1998/9 and 2011/2, NHS output increased by 79% while inputs increased by 78%.



The latest CHE report on NHS productivity and an interactive spreadsheet allowing users to interrogate the underlying data are both available here: www.cher.ac.uk

Note: This is independent research commissioned and funded by the Policy Research Programme in the Department of Health. The views expressed are not necessarily those of the Department.

Distributional cost-effectiveness analysis

Research team: Miqdad Asaria, Susan Griffin, Richard Cookson (CHE), Sophie Whyte, Paul Tappenden (SchARR, University of Sheffield)

The cost-effectiveness analysis (CEA) of health care interventions focuses on total population health and ignores unfair health inequality. We have developed a new analytical framework of "distributional cost-effectiveness analysis" (DCEA) that describes how to estimate the impact of health care interventions on unfair health inequality as well as on total health, allowing for the distribution of health gains and health opportunity costs. DCEA can be applied to health care interventions funded within a fixed health care budget, but not to cross-sectoral interventions with wider costs and benefits. This research was funded by the DH Policy Research Programme through the Public Health Research Consortium.

The DCEA framework is designed to facilitate a deliberative decision-making process by encouraging decision-makers and stakeholders to make explicit social value judgements about the appropriate definition of health ("inequality of what?"), which social variables they consider to represent unfair dimensions of health inequality ("inequality between whom?"), what they mean by inequality ("inequality measured how?"), and how far they are willing to forgo gains in total health in order to secure reductions in unfair health inequality ("how inequality averse?"). The DCEA framework is illustrated through a methodological case study of options to improve uptake of the NHS Bowel Cancer Screening Programme, which explores the sensitivity of conclusions to alternative social value judgements.

For more details see: CHE Research Paper 91 and 92 www.cher.ac.uk

DCEA website: www.dcea.ac.uk

New funding

Understanding comparative growth in emergency admissions in Scotland and England 2001/2-11/12

Martin Chalkley

1 Sept 2013 - 14 April 2014

Funder: Department of Health R&D

Late aneurysm-related mortality up to 15 years, secondary endovascular repair late sac rupture and costs and cost effectiveness implications in the United Kingdom EndoVascular Aneurysm Repair (EVAR) randomised controlled trials

Mark Sculpher (Led by Imperial)

1 Dec 2012 - 30 Nov 2015

Funder: NIHR HTA

Avoidable Scottish Hospitalisations

Mark Dusheiko (Led by the University of Aberdeen)

1 Sept 2013 - 31 Aug 2015

Funder: Chief Scientist Office, Scotland

The influence of cost-effectiveness and other factors on NICE decisions

Research team: Nigel Rice (CHE), Helen Dakin (HERC, University of Oxford), Nancy Devlin, Yan Feng, Phill O'Neill (OHE), David Parkin (King's College London)

The National Institute for Health and Care Excellence (NICE) emphasises that cost-effectiveness is not the only consideration in health technology appraisal and is increasingly explicit about other factors considered relevant. This study aimed to investigate the influence that cost-effectiveness and a multitude of other factors have had on NICE decisions published to December 2011, and whether the influence of these factors has changed over time. NICE decisions were modelled as accepting or rejecting a healthcare technology in a specific patient group. Potential influencing factors on the decision to accept or reject included: clinical and economic evidence; characteristics of patients, disease or treatment; and contextual factors. Data were obtained from HTAinSite [www.htainsite.com]. Our findings show that cost-effectiveness alone correctly predicted 82% of decisions and that few other variables were significant predictors of decisions. There was no evidence that the cost per QALY threshold has changed significantly over time. Findings also suggest that some NICE decisions appear to have been based on a higher threshold than £20,000-£30,000/QALY. This may, however, reflect consideration of other factors that cannot be easily quantified.

Full report can be found at: www.nice.org.uk

Conference and workshop presentations

Rita Faria visited the *Instituto de Evaluación Tecnología en Salud (IETS)* in Colombia in September to collaborate in the development of a set of guidelines for health technology assessment. During her visit, Rita presented seminars at IETS, the University of Antioquia in Medellin and at the University of Cartagena as well as a one day workshop entitled 'Practical issues in health technology assessment'. The visit was funded by a travel grant from the Santander International Connections Awards.

In October, **Andrea Manca** gave an invited talk at the 2nd Symposium on the Economics of Personalised Medicine in Luxembourg entitled 'Health economic evaluation of patient centred healthcare: where to?'

Mike Drummond gave a plenary presentation on 'Health technology assessment in the adoption, diffusion and disinvestment of technologies in the UK' at the 34th National Congress of the Society of Italian Hospital Pharmacists' held in Turin in October. He was also a panellist at the International Society for Medical Publication Professionals' European Meeting in London. In January, Mike gave a plenary presentation and tutored a workshop at the first conference of the Indonesian Association of Health Economics, Bandung.

In October, **Andrew Street** gave the plenary address at the annual conference of the Hospital Association of South Africa, and also was interviewed on CNBC Africa about the need for transparency and cost comparison in regulation of the South African hospital sector. He attended the Patient Reported Outcome Measures (PROMs) research conference at the King's

Fund in December where he presented a paper co-authored with M Gomes entitled 'PROMs: impact of non-response and missing data'. In January he presented a paper on 'Variations in costs and patient reported outcomes in England' at the University of Hamburg.

A number of CHE staff and students attended the ISPOR 16th Annual European Congress in Dublin in November, including: **Mike Drummond** who presented on 'Decision making under uncertainty', and was an 'Issues' panellist for 'Pharmacy benefit management in the US'; and **Andrea Manca** who was an 'Issues' panellist for 'Integrating reimbursement needs into the design of drug development programmes'.

On 17 January, the Health Service Journal covered CHE's report on NHS productivity, with a lead editorial, news item and an article written by **Andrew Street**. Andrew's research with **Panos Kasteridis** from CHE was quoted in the Guardian (4 January 2014) in a lead article titled 'NHS could be 'overwhelmed' by people with long-term medical conditions'.

In November, **Rowena Jacobs** gave a presentation in Leeds at the Data Linkage Stakeholder Forum for The Health and Social Care Information Centre, on 'The realities of linking data for health services research'. In February, Rowena gave two presentations to the NHS in Leeds on 'Mental health Payment by Results (PbR)'. She also gave a plenary talk at the London conference 'Improving mental health: How community and primary care services can support better mental health outcomes' which was jointly hosted by the CHE and the Kings Fund. The presentation was based on an NIHR project between CHE, HYMS and Health Sciences (York) entitled 'Does

higher quality primary care for people with serious mental illness affect hospital admission?'

The winter Health Economists' Study Group meeting took place in Sheffield on 8-10 January. CHE's staff contributed 6 papers and acted as discussants of 6 other papers. Centre staff who attended included **Miqdad Asaria, Chris Bojke, Adriana Castelli, Martin Chalkley, Richard Cookson, Mike Drummond, James Gaughan, Katja Grašič, Hugh Gravelle, Shehzad Ali, Nils Gutacker, Panos Kasteridis, Anne Mason, Valarie Moran and Andrew Street**.

James Lomas presented a paper in January, at HERG Brunel's Virtual Research Seminar - a webinar entitled 'A quasi-Monte Carlo comparison of developments in parametric and semi-parametric regression methods for heavy tailed and non-normal data: with an application to healthcare costs' (joint work with Andrew Jones from DERS, **Nigel Rice** from CHE and Peter Moore from Oxford Outcomes).

In January, **Maria Goddard** presented 'Health economics and health policy: an overview and experience from England' at the UK-Japan Symposium on Health Economics organised by the British Embassy, Tokyo, Japan. Maria also attended a panel session with Embassy officials to discuss the growth of health economics in Japan, as well as research workshops at Keio University in Tokyo.

Tony Culyer has been made an honorary member of the Finnish Health Economics Association and gave a paper 'Health economists and social value judgments: on being humble economists' at the 2014 annual Health Economics Day in Helsinki on 7th February 2014.

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Courses and workshops

Analysing patient-level data using hospital episode statistics (HES) www.york.ac.uk/che

28 -30 April 2014

York Expert Workshops www.york.ac.uk/che

Outcome Measurement Workshop
Wednesday 25 June - Friday 27 June 2014

Foundations Workshop Monday 30 June - Friday 4 July 2014

Advanced Workshop Monday 7 July - Friday 11 July 2014