School of Social and Community Medicine

Health Economics at Bristol

Summer 2016, Issue 1



Just some of the members of the HEB team

"Welcome from Will"



Welcome to our first newsletter!

We are a team of researchers at the University of Bristol who study the economics of health and healthcare. Health economics has deep roots in Bristol including an early example of economic analysis of home nursing conducted in the 1960s that essentially used a costconsequences format to conclude that the "benefits... far outweigh the costs for home nursing" (http://www.ncbi.nlm.nih.gov/pmc/ articles/PMC1820075/). Our team works across a range of topics including the economics of health and care across the life course, efficiency and equity in health care decisions, and developing

methods for applied health economics.

The Health Economics at Bristol team has grown rapidly in the last 10 years and we now have more than 25 researchers and PhD students, including several appointments in the last year. As one of these new appointees, we are delighted to welcome Joanna Coast back to Bristol. Jo was appointed as Professor in the Economics of Health & Care in November 2015. Jo's expertise in qualitative methods and her research interests, complement the existing strengths of HEB in applied economic evaluation and economic modelling.

In HEB, we aim to develop the careers of all members of our team and to help them fulfil

their potential, so, it is fantastic to be able to celebrate the success of three of our PhD students in this, our first, newsletter.

These newsletters will keep you up to date with our research interests, latest research findings and staff news. We hope you enjoy reading them and if you would like any further information or are interested in collaborating with us please get in touch using the contact details below.

Will Hollingworth, Director of HEB

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Inside this issue... Welcome to Prof Jo Coast Hear about Jo's future research plans Strategy day: Forming priorities Read about our priorities for the future Our research Staff news **Publications & conferences**



Professor Jo Coast joins HEB

Joanna Coast (🕤 @joclarkecoast)

Things are changing for HEB, with the appointment of a number of new members of staff over the last 12 months. One of these is Professor Joanna Coast, newly appointed Professor in the Economics of Health & Care.

Jo worked in Bristol previously, from 1990 to 2005, before spending ten years at the Health Economics Unit (HEU), University of Birmingham. Since returning to Bristol, Jo has been working on existing research in the area of end of life care, new funding applications to move forwards with research on capability and a book on the use of qualitative methods in health economics. She has recently been appointed as Deputy Director (Research) for the NIHR CLAHRC West and is likely to be involved in work on commissioning and priority setting through the CLAHRC. Whilst Jo is supporting a number of Bristol researchers on a variety of projects from renal care to prostate cancer to hepatitis C infection, she is also retaining old links and generating new ones. She is maintaining links with colleagues at the Health Economics Unit in Birmingham, particularly around public health decision making, the ICECAP Supportive Care Measure, and use of capability information in decision making. She has also secured a small grant to generate links between HEB and the University of Heidelberg's research group in Health Economics and Health Financing (HEHF).

"Joanna Coast; Professor in the Economics of Health and Care"

Strategy Day: Forming Priorities

Will Hollingworth (**W** @willh108)

In March, members of HEB gathered for our first strategy day. This was a welcome opportunity to get to know each other better, take stock and plan for the future. We discussed the research strategy for the group, teaching and learning and communications.

Our existing research strengths include: simplifying and standardising resource use measurement in RCTs; developing more efficient methods for value of information analyses based on multi-parameter evidence synthesis; and application of econometric techniques to improve causal analysis of large health datasets. With recent appointments, we are building on strengths in qualitative methods in health economics; measuring capabilities; economics at the end of life; and using

economic evidence for NHS decision making. We also have expertise in evaluating complex interventions in primary care, public health and surgery in multi-disciplinary projects with colleagues in the School of Social and Community Medicine.

Going forward, we aim to build on our national and international reputation in three research themes: economics of health and care across the life course; efficiency and equity in decision making and methods for applied health economics.

The strategy day also became the starting point for new initiatives such as this newsletter and a HEB writing week. It allowed us to redesign our journal club, research methods meetings and seminar series.



"HEB team thinking about priorities...."

Our Research Themes:

- Economics of Health and Care across the Life Course
 - Methods for Applied Health Economics
 - Efficiency and Equity in Decision Making



"Jeff with his paper of the year award"

Research paper of the year

Jeff Round (@unhealthyecon)

Jeff Round's paper on the costs of caring for people with cancer at the end of life, was awarded 'Research Paper of the Year' in the journal Palliative Medicine in June 2016.

Jeff joined HEB in December, 2015, following a spell of five years at University College London. His recent research focus has been the economics of care for people at the end of life. His research paper of the year (Round J, Jones L, Morris S. Estimating the cost of caring for people with cancer at the end of life: A modelling study. Palliative Medicine. 2015 29;10: 899-907) concerned the cost of providing care to people with cancer, at the end of their lives. Using a modelling based approach, the work tried to capture the costs to the NHS and society of caring for people during the terminal phase of illness. Of interest was the high proportion of costs borne by informal caregivers. The results were also notable for the degree of uncertainty in the data, arising from lack of data on people at the end of life and the challenges of defining the end of life period.

Jeff has further contributed to the economics of end of life care with the publication in early 2016 of an edited book, *Care at the End of Life: An Economic Perspective*, containing contributions from leading researchers in this area.

We are delighted that, as this newsletter was going to press, we are able to offer our congratulations to Jeff on the award of his PhD on the economics of care for people at the end of life, supervised by Steve Morris and Louise Jones at UCL, and focusing on costs of caring for people at the end of life and the effects of informal caregiving on the employment, health and wellbeing of carers.

Improving Resource use measurement in trials

Jo Thorn (@ThornJC), Will H, Sian Noble

Resource use is commonly measured in trials by asking patients about their resource use. Health economists typically create a new questionnaire for each trial,



but these instruments are rarely validated adequately.

With funding from the MRC Network of Hubs for Trials Methodology Research, a collaboration between Bristol, Bangor and Oxford Universities aims to reduce the wasted research effort involved in reinventing questionnaires by working towards a well validated, standardised resource-use questionnaire that is applicable to a wide range of conditions and interventions.

The study began with a review of questionnaires in the Database of Instruments for Resource-Use Measurement (DIRUM, <u>www.dirum.org</u>). Over 2000 items of resource use were extracted from UK-based instruments and, following scrutiny for overlap, 60 items relevant to an NHS/PSS perspective were selected for use in a two-round Delphi survey. An expert panel of 45 health economists was recruited to identify those items that should be prioritised for inclusion in a standardised instrument. Delphi methodology allows a consensus opinion to be formed; survey participants were asked to rate items according to their importance in a generic context, and were then asked to reconsider their answers in the light of group feedback. The results of the Delphi survey, which

were recently presented at the HESG meeting in Gran Canaria, suggested 10 items for a core resource-use measure, and a number of items suitable for 'bolt-on' modules.

Geographic variation and hospital admission

John Busby (J@johnbusby2491)

John Busby has recently completed work investigating geographic variations in unplanned ambulatory care sensitive condition (ACSC) admission rates, length of stay and readmission rates.

ACSCs are conditions where improved primary and community care can potentially prevent admission. John's work was split into three strands. First, he conducted a systematic review which found that substantial geographic variations in these three factors were commonplace across high-income countries. Second, he used routine data from English hospitals to explore how ACSC care varied among primary care trusts and general practices. He found that admission rates for mental health conditions, younger patients, and those admitted for a short hospital stay were particularly variable. There are several potential reasons for this including disparities in disease management quality, community treatment provision, and hospital admission thresholds. This work could be used to inform both research and commissioning priorities within the NHS.

Lastly John investigated which population, practice and hospital factors were most strongly associated with admission rates, finding that areas with more deprived patients, greater bed availability, reduced continuity of primary care and increased A&E proximity had consistently higher admission rates. The importance of factors differed across conditions suggesting that multifaceted interventions are required to reduce admissions.

HEB Seminars:

Stephanie von Hinke Kessler Scholder - 22nd Sept 2016

Key Publications

Methods for Applied Health Economics

Brilleman, S., Metcalfe, C., Peters, T. J. & **Hollingworth, W.** (2016) The Reporting of Treatment Nonadherence and Its Associated Impact on Economic Evaluations Conducted Alongside Randomized Trials: A Systematic Review. Value in Health. 19, 1, p. 99-108

Caldwell D & **Welton N** (2016) Approaches for synthesising complex mental health interventions in meta-analysis. Evidence Based Mental Health. 19, p.16-21

Keeley, T., **Coast, J.**, Nicholls, E., Foster, N. E., Jowett, S. & Al-Janabi (2016) An analysis of the complementarity of ICECAP-A and EQ-5D-3L in an adult population of patients with knee pain. Health and Quality of Life Outcomes. 14, 36 DOI: 10.1186/s12955-016-0430-x

Mitchell, P., Roberts, T., Barton, P. M. & Coast, J. (2016) Applications of the capability approach in the health field: a literature review. Social Indicators Research. DOI 10.1007/s11205-016-1356-8

Efficiency and Equity in Decision Making

Atkinson, C., Penfold, C. M., Ness, A. R., Longman, R. J., Thomas, S. J., **Hollingworth, W., Kandiyali, R.**, Leary, S. D. & Lewis, S. J. (2016). Randomized clinical trial of postoperative chewing gum versus standard care after colorectal resection. British Journal of Surgery. 103, 8, p. 962-970

Dixon, P., Chamberlain, C. & Hollingworth, W. (2016) Did it matter that the Cancer Drugs Fund was not NICE? A retrospective review. Value in Health. DOI: http://dx.doi.org/10.1016/j.jval.2016.04.001

Salisbury, C. J., O'Cathain, A., Edwards, L. P., Thomas, C. L., Gaunt, D. M., **Hollinghurst, S. P.**, et al. (2016) Effectiveness of an integrated telehealth service for patients with depression: a pragmatic randomised controlled trial of a complex intervention. The Lancet Psychiatry. 3;6;515-525.

Sanghera, S., Barton, P., Bhattacharya, S., Horne, A. W., Roberts, T. E. & PRE-EMPT research group (2016) Pharmaceutical treatments to prevent recurrence of endometriosis following surgery: a model-based economic evaluation. BMJ Open. 6, 4, DOI:10.1136/bmjopen-2015-010580

Turner, E., Metcalfe, C., Donovan, J., **Noble, S.**, et al (2016) Contemporary accuracy of death certificates for coding prostate cancer as a cause of death: Is reliance on death certification good enough? A comparison with blinded review by an independent cause of death evaluation committee. British Journal of Cancer. 115, 1, p.90-94

Wiles, N. J., Thomas, L. J., Turner, N. L., **Garfield, K. M.**, Kounali, D-Z., Campbell, J., Kessler, D. S., Kuyken, W., Lewis, G., Morrison, J., Williams, C., Peters, T. & **Hollinghurst, S. P**. (2016). Long-term effectiveness and cost-effectiveness of cognitive behavioural therapy as an adjunct to pharmacotherapy for treatment-resistant depression in primary care: followup of the CoBaIT trial. The Lancet Psychiatry. 3, 2, p. 137-144

Economics of Health and Care across the Life Course

Alfirevic, Z., **Keeney, E.**, Dowswell, T., **Welton, N.**, Medley, N., Dias, S., Jones, L. V. & Caldwell, D. (2016). Methods to induce labour: A systematic review, network meta-analysis and cost-effectiveness analysis. BJOG: An International Journal of Obstetrics and Gynaecology. DOI: 10.1111/1471-0528.13981

Coast, J., Huynh, E., Kinghorn, P. & Flynn, T. N. (2016) Complex valuation: applying ideas from the complex intervention framework to valuation for a new measure for end of life care. PharmacoEconomics. 34, 5, p. 499-508

Round, J. (2016) Care at the End of Life: An Economic Perspective.1 ed. Switzerland: Adis ons. 205 p.

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Public Engagement

Jo Coast took part in interesting discussions during a panel session on 'Antibiotic Apocalypse' at The Times Cheltenham Science Festival in June 2016. She provided an economic view of the issues. Fellow panel members providing different perspectives were Dr Richard Stabler, a molecular bacteriologist from LSHTM and Dr Emily Mayhew, a medical historian from Imperial College London.

Conferences

Look out for our HEB team members at conferences across the summer:

- EuHEAHESG
- PROMS
 - PRIORITIES 2016

MEMTAB

HSRUK symposium

HDCA

Congratulations to:



Sam Husbands

Successfully defended her thesis titled 'A qualitative analysis of the model building process'

Sam's supervisors were **Jo Coast**, Pelham Barton and Sue Jowett (University of Birmingham).



John Busby

Successfully defended his thesis titled 'Preventing unnecessary unplanned hospital admissions and achieving timely discharge: an analysis of geographic variation'

John's supervisors were **Will** Hollingworth and Sarah Purdy



Care at the

End of Life

Charlotte Chamberlain

Successfully defended her thesis titled 'Access to non-curative anti-cancer therapies on the NHS: The role of the cancer drugs fund'

Charlotte's supervisors were **Will Hollingworth**, Amanda Owen-Smith and Jenny Donovan

<u>https://www.youtube.com/watch?v=DjFq76opsOI</u> (Charlotte at 3MT)

