

# Health Economics Unit

Welcome to the Spring 2014 edition of HEU news!



With Spring in the air, the sun is shining, the birds are singing and we are delighted to join the 'tweeting'.

In this issue we look ahead to the strategic plans for 2014 and beyond. HEU will continue its strategic focus on areas of *Economic analysis where a substantial proportion of costs and/or benefits are perceived to fall outside the health sector; and on interventions where context may have a particularly strong effect.*

Examples of work contributing to this strategic focus includes HEU's work on both end of life care and capability, which feature in this issue: Alastair Canaway's doctoral research, on *Capturing close person benefits for use in economic evaluation* (page 2); the 3rd ICECAP Users' Workshop hosted by HEU in Birmingham in February (page 3); and the EconEndLife advisory group held in

March (page 3). We are thrilled that HEU's research has had an input into policy debate as Hareth Al-Janabi was interviewed by the BBC's Radio 5 live in January (page 3).

Looking ahead, in terms of capacity building, three new doctoral students will start in the Autumn on projects that will continue to consolidate HEU's strategic research. And on the capacity building theme, we are delighted to report success in achieving three NIHR funded studentships for our new MSc in Health Economics and Econometrics – and there will be further tweeting about the competitive application process shortly.

Tracy Roberts

Head of Unit

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## HEU

### joins Twitter!

Since mid February 2014 the Health Economics Unit has had a Twitter account. This is being used to disseminate information from the Unit in a slightly speedier way than we can manage with the newsletter! By the end of April we had tweeted more than 80 times on topics including published papers, conference attendance, unit seminars, teaching issues and events within the unit. To keep up with HEU's activities, do follow us on @HEU\_UoB.

## What's new in HEU...

HEU are very pleased to officially announce the launch of a new MSc Health Economics and Econometrics programme, to commence in 2014, which will run alongside the Unit's existing thriving MSc in Health Economics and Health Policy. The new programme is in collaboration with the Department of Economics and offers students the opportunity to develop a set of complementary skills through (a) compulsory health economics based modules that underpin HEU's existing MSc, and (b) graduate level courses in both Econometrics and Microeconomics delivered by the Department of Economics in Birmingham. We are further delighted to report that Birmingham has been awarded its requested number of three NIHR funded studentships per year for 3 years (to commence 2014) in the NIHR national competition for studentships, to support students undertaking the new MSc in Health Economics and Econometrics. The programme can only be undertaken full time and eligibility for admission requires a first degree in Economics with a clear indication of quantitative ability. The application process for both programmes is already running and can be found at: <http://www.birmingham.ac.uk/schools/haps/postgraduate/index.aspx>.

All successful applicants admitted to the MSc Health Economics and Econometrics programme will be included in an assessment of eligibility for the studentships and will be notified of the required process and deadline (yet to be confirmed) for the studentships application. Applications for studentship support must be received prior to the deadline.

### Contact us at:

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 Website: <http://www.birmingham.ac.uk/healthconomics>  
 Email: [healthconomics@contacts.bham.ac.uk](mailto:healthconomics@contacts.bham.ac.uk)

## Capturing close person benefits for use in economic evaluation

Economic evaluation using the extra-welfarist approach typically only considers the direct patient benefits of interventions from a health care perspective. The Department of Health's latest recommendations for value based pricing indicates that the wider societal impacts of interventions should be included in economic analyses. End of life care is a prime example of where this may be particularly pertinent, as the benefits to patients may, arguably, be less than the benefits to those who are close to the patient. It can be reasoned that those who are close to the dying and are adversely affected by the death of the patient should therefore also be included within the evaluation.

For his doctoral research **Alastair Canaway** (under the supervision of **Joanna Coast**, **Hareth Al-Janabi**, **Philip Kinghorn** and **Cara Bailey**) is aiming to develop a measure to capture the benefits of end of life care for use in economic evaluation. He is using in-depth interviews and constant comparative analysis with bereaved individuals, as well as those with a close person currently receiving end of life care, to develop a descriptive system for the measure within the capability framework. Preliminary attributes from the interviews include: being able to have good communication with services; being able to have privacy and space to be with the close person; being able to get emotional support; being able to get practical support; being prepared and able to cope; and, being free from emotional distress related to quality of care.



Alastair Canaway

The next stage of Alastair's research will be spent developing the descriptive system and then valuing the measure. The measure will be valued using an exploratory and novel methodology that involves the use of focus groups and deliberation with members of the general public. The result will be a measure that captures the benefits of end of life care to close persons and will complement the patient focused ICECAP-SCM in evaluating end of life care.

## Accuracy of Bladder Ultrasound Study (BUS)



Is a diagnostic test a cost-effective component in the treatment pathway of women with predominant symptoms of overactive bladder (OAB)? **Tracy Roberts**, **Ilias Goranitis** and **Pelham Barton** aim to shed a light on this question using decision analytical modelling.



Pelham Barton, Tracy Roberts, Ilias Goranitis

Overactive bladder is a syndrome characterised by urgency that occurs with or without incontinence and usually with frequency and nocturia. These symptoms, which are prevalent in 12-18% of the population, have been shown to affect physical, psychological and social wellbeing, while having considerable resource implications for the NHS. However, urinary symptoms alone are perceived to be unreliable in determining the right treatment. As a result, a bladder test called urodynamics (UDS) is used for diagnostic purposes in the treatment pathway. UDS is invasive, poorly tolerated, costly, and has an associated risk of urinary infections. In the absence of comprehensive evidence for its clinical utility and role in determining treatment outcomes, the importance of UDS is increasingly questioned. The bladder ultrasound study (BUS) follows on from NICE's recommendation for further research into the role of bladder ultrasound in the assessment of OAB. For this purpose, more than 600 women were recruited over a 24-month period from 27 participating centres. A model-based economic evaluation will allow an extrapolation of the data and a comparison of the cost-effectiveness of various care pathways, and in particular pathways that establish the cost effectiveness of UDS to determine treatment, compared to bladder ultrasound and the option of not having a diagnostic test.

## Seminar Series

The Health Economics Unit runs a monthly seminar series at which speakers from around the UK and Europe present their work.

Dates and speakers for the forthcoming monthly seminars are as follows:

Thursday 15th May  
**Ciaran O'Neill**  
(NUI Galway)

Thursday 19th June  
**John Brazier**  
(SchARR, University of Sheffield)

Thursday 17th July  
**Elisabeth Fenwick**  
(University of Glasgow)

If you would like to attend any of these seminars or would like to contribute, please contact us via our email address.

## Pelham's Pen

*Why are academics like footballers?*

*Both keep cursing the REF!*

*A methodologist and an applied researcher were up for the same job. To test them, each in turn was led into a room with a bench on which was a lit gas ring with a pan of boiling water, an egg on the left and a spoon on the right. They were set the task of boiling the egg. The methodologist picked up the egg in the left hand and the spoon in the right hand, used the spoon to transfer the egg into the water, and boiled the egg. The applied researcher did exactly the same thing, so another test was needed.*

*Everything else was the same, but this time the spoon was on the left and the egg on the right. The applied researcher picked up the spoon in the left hand and the egg in the right hand, used the spoon to transfer the egg into the water, and boiled the egg. The methodologist picked up the egg and spoon, swapped them over, put them back down, and said "we have now reduced this to the previous problem, which we already know how to solve".*

## Have you heard... ...about the 3rd ICECAP Users' Workshop?

This two day workshop was held at the end of February 2014 and was funded by the West Midlands MRC Hub for Trials Methodology Research. Day one was a large workshop, providing information on new developments within ICECAP and exploring users' experiences with the measure. It was attended by around 70 participants from the UK, Australia, Austria, France, Italy and the Netherlands. There were general presentations on the capability approach as well as presentations on various methodological issues including the distinction between capability and functioning, and the use of capability measures in decision making. Experiences of users and the development of new tariffs were also discussed. The day also included a poster session, with the prize-winning poster coming from the University of Aberdeen's Health Economics Research Unit.

Day two focused on developing ideas for future research and generating collaborative work. Two topics were discussed in depth by around 20 participants: the possibility of generating an ICECAP-C for use with children and the use of capability measures outside the UK setting. The workshop was extremely valuable, and brought together leading national and international researchers from health economics, capability and human development, public health, child health, psychology and social policy to explore the use of the ICECAP measures both in trial and other settings, and to provide the foundation for applications for future funding.

## Staff news...

Just after our last newsletter went to press – and in the middle of our strategy workshop -

**Hareth Al-Janabi** was interviewed by the BBC on Radio 5 live. The programme focused on the funding of a new vaccine for meningitis (Bexsero for 'men B'). Hareth joined a clinician and a charity research director and discussed his work that showed that a vaccine was likely to generate health (QALY) gains, not just for 'patients', but also for their close family members. A (JCVI) recommendation not to fund the vaccine has since been reversed. And this was based on new cost-effectiveness evidence that takes into account health spillovers amongst other factors. A nice example of methodological research influencing policy!



In September, we will be welcoming 3 new doctoral students all of whom are currently studying for MSc's.

**Arjun Bhadhuri** will start work on his project on health spillovers and will be supervised by **Hareth Al-Janabi**, **Sue Jowett** and Kate Jolly (public health). Arjun's PhD work will examine methods for including spillover effects in economic evaluation, focusing on case studies of childhood illness and adult respiratory illness.

**Magda Aguiar** will be exploring treatment and prevention strategies for vitamin D deficiency supervised by **Emma Frew**, **Lazaros Andronis**, **Miranda Pallan** (public health) and **Wolfgang Hogler** (paediatrician). Magda's PhD work will model the cost-effectiveness of different strategies within a paediatric population from a global perspective.

**Emily Moss** will be supervised by **Tracy Roberts**, **Louise Jackson** and **Phil Kinghorn** and will develop and pilot approaches for the valuation of outcomes associated with sexually transmitted infections.

At the beginning of 2013, **Tracy Roberts** took on the role of Convenor of the Heads of Health Economics Units meetings. The group meets twice each year to discuss common issues such as strategies to develop the discipline and aid capacity development, and to initiate feedback to other organisations. Dr David Cox, Deputy Director for Research Finance and Programmes, Department of Health (DH) addressed the most recent meeting held in January (at HESG Sheffield) and discussed capacity development strategies within NIHR, economics skills required within DH and issues around retention of health economists within academia and the NHS.

## EconEndLife advisory group

We were delighted to welcome members of the EconEndLife advisory group to Birmingham in early March 2014. Invited members came from universities (Birmingham, Bristol, Erasmus, Glasgow Caledonian and UCL) and both hospital and hospice service environments. Discussions were extremely helpful for the programme of work and we would like to thank all members for their valuable insights - and for not being distracted by the table football outside the room!



## Capacity building news

### Paper successes for MSc students

We are delighted to report on three recent paper successes for graduates of the MSc in Health Economics and Health Policy. **Nick Adlard's** work, recently accepted for *Value in Health* reported a systematic review of UK-based paediatric cost-utility analyses and directly compared published practice to existing guidelines for paediatric economic evaluation. **Christopher Stephen** conducted a willingness-to-pay study measuring the value placed on telecare by informal carers of people with dementia, with the work being published in the *Journal of Telemedicine and Telecare*. **Oluwaseyi Vincent** explored the potential economic costs associated with stillbirth, a profoundly traumatic experience for parents posing the risk of long-term negative effects, and proposed an agenda for future research. This work has been published in *BMC Pregnancy and Childbirth*.

#### Publication details:

**Adlard N, Kinghorn P, Frew E.** Is the UK NICE 'reference case' influencing the practice of paediatric QALY measurement within economic evaluations? *Value in Health (in press)*

**Mistry H, Heazell AEP, Vincent O, Roberts TE.** A structured review and exploration of the healthcare costs associated with stillbirth and a subsequent pregnancy in England and Wales. *BMC Pregnancy and Childbirth*. 2013. DOI: 10.1186/1471-2393-13-236

**Stephen C, Hamira S, Frew E.** Valuing telecare using willingness to pay from the perspective of carers for people with dementia: a pilot study from the West Midlands. *Journal of Telemedicine and Telecare*. 2014. DOI: 10.1177/1357633X14528445

### MSc Programmes and associated short courses

HEU run two separate but allied MSc programmes: MSc Health Economics and Health Policy and MSc Health Economics and Econometrics. Both MSc programmes are ideal for new graduates hoping to pursue a career in health economics. The MSc in Health Economics and Health Policy is also particularly suited to those currently working in the health care sector who wish to develop skills in health economics. Both programmes explore the key principles and theories upon which health economics is based as well as developing practical skills for the conduct of empirical work. The MSc Health Economics and Econometrics is differentiated primarily by its compulsory modules in Microeconomics and Econometrics in addition to the health economics modules and requires a first degree in Economics. The following modules are shared by both programmes and are also provided as individual short courses:

- Introduction to Health Economics
- Policy and Economics of Health Care Delivery (optional for MSc Health Economics and Econometrics)
- Economic Evaluation in Health Care
- Modelling for Health Economics.

To learn more about the MSc's or about the short courses visit: <http://www.birmingham.ac.uk/healthconomics>, contact Helen Evans on 0121 414 7694 or email [healthconomics@contacts.bham.ac.uk](mailto:healthconomics@contacts.bham.ac.uk)

## Selected recent publications

**Canaway AG, Frew EJ.** Is utility-based quality of life in children aged 6-7 years affected by Body Mass Index (BMI)? *International Journal of Obesity*. 2014. DOI:10.1038/ijo.2013.219

**Diwakar L, Morris RK, Barton P, Middleton LJ, Kilby MD, Roberts TE.** Evaluation of the Cost Effectiveness of Vesico-Amniotic Shunting in the Management of Congenital Lower Urinary Tract Obstruction (Based on Data from the PLUTO Trial). *PLoS ONE*. 2013. DOI: 10.1371/journal.pone.0082564

**Flynn TN, Huynh E, Peters TJ, Al-Janabi H, Moody A, Clemens S, Coast J.** Scoring the ICECAP-A capability instrument. Estimation of a UK general population tariff. *Health Economics*. 2014. DOI: 10.1002/hec.3014

**Gait C, Frew EJ, Martin TPC, Jowett S, Irving R.** Conservative management, surgery and radiosurgery for treatment of vestibular schwannomas: a model-based approach to cost-effectiveness. *Clinical Otolaryngology*. 2014. DOI: 10.1111/coa.12205

**Goranitis I, Coast J, Al-Janabi H.** An investigation into the construct validity of the Carer Experience Scale (CES). *Quality of Life Research*. 2013. DOI: 10.1007/s11136-013-0616-1

**Keeley T, Al-Janabi H, Lorgelly P, Coast J.** A Qualitative Assessment of the Content Validity of the ICECAP-A and EQ-5D-5L and Their Appropriateness for Use in Health Research. *PLoS ONE*. 2013. DOI:10.1371/journal.pone.0085287

**Kigozi J, Lewis M, Jowett S, Barton P, Coast J.** Construct Validity and Responsiveness of the Single-Item Presenteeism Question in patients with Lower Back Pain for the Measurement of Presenteeism. *Spine*. 2014. DOI: 10.1097/BRS.0000000000000162

**Kinghorn P, Coast J.** A Health Economics Response to the Review of the Liverpool Care Pathway. *Journal of Palliative Medicine*. 2013. DOI:10.1089/jpm.2013.0464

**McLeod H, Millar R, Goodwin N, Powell M.** Perspectives on the policy 'black box': a comparative case study of orthopaedics services in England. *Health Economics, Policy and Law*. 2014. DOI: 10.1017/S1744133114000048

**Meads C, Davenport C, Małysiak S, Kowalska M, Zapalska A, Guest P, Martin-Hirsch P, Borowiack E, Auguste P, Barton P, Roberts T, Khan K, Sundar S.** Evaluating PET-CT in the detection and management of recurrent cervical cancer: systematic reviews of diagnostic accuracy and subjective elicitation. *BJOG*. 2014. DOI: 10.1111/1471-0528.12488

**Morris KP, Oppong R, Holdback N, Coast J.** Defining criteria and resource use for high dependency care in children: an observational economic study. *Archives of disease in Childhood*. 2014. DOI: 10.1136/archdischild-2013-305133

**Penaloza-Ramos MC, Sheppard JP, Jowett S, Barton P, Mant J, Quinn T, Mellor RM, Sims D, Sandler D, McManus RJ on behalf of the BBC CLAHRC investigators.** Cost-Effectiveness of Optimizing Acute Stroke Care Services for Thrombolysis. *Stroke*. 2014. DOI: 10.1161/STROKEAHA.113.003216

**Sanghera S, Roberts TE, Barton P, Frew E, Daniels J, Middleton L, Gennard L, Kai J, Gupta JK.** Levonorgestrel-Releasing Intrauterine System vs. Usual Medical Treatment for Menorrhagia: An Economic Evaluation Alongside a Randomised Controlled Trial. *PLoS ONE*. 2014. DOI:10.1371/journal.pone.0091891

**Sutton A, Barton P, Sundar S, Meads C, Rosenthal AN, Baldwin P, Khan K, Roberts TE.** Cost-effectiveness of sentinel lymph node biopsy versus inguinofemoral lymphadenectomy in women with vulval cancer. *British Journal of Cancer*. 2013. DOI: 10.1038/bjc.2013.631