

Health Economics Unit

Welcome to the Summer 2015 edition of HEUnews!

With the arrival of the UK's traditional summer weather, many colleagues have made a lucky escape to iHEA in Milan. **Hareth Al-Janabi** and **Jo Coast** are each leading an organised session with contributions from a number of other HEU colleagues, and **Emma Frew** is delivering the pre-conference workshop on technology and teaching (see below). Back in the UK, the Government's recent July Budget has delivered a raft of welfare and tax credit changes that may impact on the blood pressure of those detrimentally affected; the two featured research items in this issue focus on benefit changes and blood pressure respectively. **Hareth Al-Janabi** and Professor Fiona Carmichael from Birmingham Business school are collaborating to explore the impact of disability benefit changes across family units to raise understanding of the impact social security policy changes have on those living with long term health conditions. Meanwhile undetected hypertension is the focus of research involving **Pelham Barton**, **Sue Jowett** and **Mark Monahan** who, with colleagues at the University of Oxford, are exploring blood pressure self-monitoring and its effectiveness in both detecting and treating hypertension (see inside).

In staff news we report **Hugh McLeod's** six month secondment at Gloucestershire Clinical Commissioning Group and are very pleased to welcome two new colleagues **Tosin Lambe** and **Bishal Mohindru** who both graduated from HEU's MSc programme in 2014. Finally we report the introduction of 'Student Focus' as a regular new slot to our newsletter. In this issue, Student Focus presents a profile of another recent HEU MSc Graduate, Joanna Thorn - now a health economics researcher at Bristol University – who explains how the MSc has helped her

career and reflects on the fun experienced on the modelling module (Could that be anything to do with anecdotes delivered by a certain staff member who also has a regular newsletter slot I wonder?).

Anyhow – I hope we will all get some fun in the sun soon too!

Tracy Roberts
Head of Unit



What's new in HEU...

HEU staff and students have been active in conferences over the last few months.

In March, **Alastair Canaway** gave a plenary presentation at the Marie Curie annual research conference held at the Royal Society of Medicine. The presentation covered Alastair's doctoral work within the context of the EconEndLife programme, and was extremely well received. More information about Alastair's work can be found here

<http://blog.mariecurie.org.uk/2015/03/19/research-economics-alastair-canaway/>

Members of HEU have also been presenting at two key health economics conferences this summer, with papers both at the Lancaster HESG and iHEA in Milan. At HESG, various aspects of work using the ICECAP measures was presented, with a paper led by **Ilias Goranitis & Emma Frew** on the validity of the measure in the context of drug addiction, another led by Paul Mitchell (Kings & ex-HEU) and colleagues including **Jo Coast**, on using health measures to predict capability, and a theoretical paper questioning the value of a life-course approach to capability measurement by Jo. At iHEA, there are two organised sessions led by HEU. The first is led by **Hareth Al-Janabi** on 'Including family spillovers in economic evaluation', and includes presentation of Hareth's own work (on predicting family carers' health outcomes from patient data). The second is led by Jo Coast on 'Using Innovative Qualitative Methods to Achieve Novel Aims in Health Economics' and includes papers by **Sam Husbands** (on using observation to explore processes for decision analytic modelling), **Alastair Canaway** (on using hierarchical modelling to explore who should be included in evaluations of end of life care) and **Phil Kinghorn** (on using deliberative approaches to explore values for end of life care) as well as Jo (on analysing qualitative data through an economic lens). **Emma Frew** is also giving a pre-conference iHEA workshop on the use of technology to enhance health economics teaching as well as an individual presentation exploring different evaluative spaces in health economics using the ICECAP.

Inside this issue:

Welcome message	1
What's new in HEU...	
Contact us	
Research	2
Pelham's Pen	3
Staff news	
Seminar Series	
Recent publications	
Capacity building news	4
Student Focus	
MSc / short courses	

SOCIAL SECURITY & FAMILY LIFE

The experiences of disabled people, people with long term health conditions and their families

Hareth Al-Janabi is part of a team, led by Prof Fiona Carmichael (University of Birmingham Business School), that is investigating the impact of disability benefit changes across family units. The team will work with a PhD student (Caitlin McMullin) to explore long-term experiences of families where one or more family members receives, has recently received, or has applied for Disability Living Allowance or Personal Independence Payments.

There have been some recent changes for disabled people and people with long term health conditions in access to social security in the UK. These changes reflect a wider international policy agenda associated with economic austerity and the contraction of state support. In particular, in the UK, Disability Living Allowance for adults aged 16-64 is being replaced by Personal Independence Payments. The team want to explore how these kinds of policy changes affect people's lives, their employment, their health and their wellbeing over the long-term.

The research will involve interviews with people who have applied for Disability Living Allowance or Personal Independence Payment and interviews with their informal carers, other family members, or close friends. In the interviews the team will ask about experiences of social security entitlements as well as how this interacts with their day-to-day life (including leisure, work and wellbeing). As part of the research the research team will be asking participants to complete an embedded life-history calendar to contextualise the interview findings.

The team are hoping the research will raise understanding of how social security policy changes affect people with long term health conditions and their families.

The project is funded by the British Academy/Leverhulme Trust and will run from February 2015 to January 2017.

Optimising the diagnosis and management of hypertension in primary care through self monitoring of blood pressure

Hypertension (high blood pressure (BP)) is a major risk factor for stroke and heart disease, with almost 7 million people in England currently receiving antihypertensive treatment. However, research suggests that perhaps twice as many people have undetected hypertension and, for many of those being treated, it is poorly controlled. BP can be easily and accurately measured using electronic BP monitors and evidence suggests that patients can successfully self-monitor using this equipment. An Oxford University-led NIHR Programme Grant, which began in early 2012, aims to provide new information regarding the use of self-monitoring of BP in both the detection and treatment of hypertension. The research is led by Professor Richard McManus and builds on three self-monitoring trials (TASMINH, TASMINH 2, TASMIN-SR), and a model-based analysis which determined the most appropriate method for diagnosing hypertension, that subsequently informed NICE hypertension guidelines. All four studies involved members of HEU as collaborators.

Continuing this successful collaboration, the health economics aspects of the current programme are led by **Sue Jowett** and **Pelham Barton**, with **Mark Monahan** employed on this study for the next two years. Decision modelling is being used to explore four main research questions:

- Is the use of a risk-based algorithm to determine who receives home BP monitoring/ambulatory BP monitoring cost-effective? This work builds on the analysis undertaken for the NICE guidelines.
- Could the use of blood pressure self-screening kiosks in the community be a cost effective method of screening for hypertension?
- What is the most cost-effective method of hypertension screening and subsequent cardiovascular risk assessment?
- Is the management of hypertension based on self-monitored blood pressure, with or without telemonitoring, cost-effective compared to usual care? Here the modelling will extrapolate the results of the TASMIN 4 trial.

It is hoped that the results of this research will influence guidelines produced by NICE and be followed by GPs nationally. Ultimately, the purpose is to result in better management of hypertension and reduce the risk of cardiovascular disease.



Pelham, Sue and Mark

Pelham's Pen

An important part of health economics research over the last few years has been value of information analysis. Here is an example of the value of information in everyday life.



Bill and John are on a hiking tour of Canada. One cold evening, they see an isolated farm. They knock on the farmhouse door, and a 40-year-old woman answers. They ask if she can put them up for the night. She explains that, as she is a widow living alone, she cannot possibly let them into the house, but they are welcome to spend the night in the barn. In the morning, she takes them breakfast and they go on their way.

Nine months later, Bill phones John and says "Do you remember the hiking tour we went on last year?"

"Yes."

"And do you remember the night we spent in that barn?"

"Yes."

"Did you by any chance visit the widow during the night?"

John, somewhat embarrassed, admits that he did.

"And did you give her my name instead of yours?"

John, now seriously embarrassed, says "Well yes, I did. Why do you ask?"

Bill says "I have just heard that she died recently and in her will she has left all her property to me."

The Health Economics Unit Monthly Seminar Series will continue to run in the forthcoming academic year with speakers and dates currently being confirmed. The new series starts in September (see below) and details of future speakers will be published in the next HEUnews.

10th September 2015
Fern Terris-Prestholt
LSHTM

22nd October 2015
Judith Smith

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

Staff news

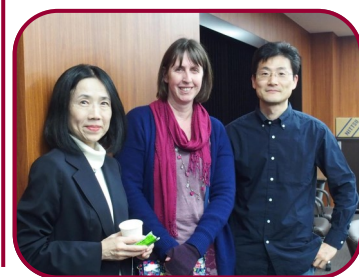
The HEU would like to give a warm welcome to two new members of staff, **Tosin Lambe** and **Bishal Mohindru**, who both completed their MSc in Health Economics & Health Policy in 2014. Tosin will firstly be working with **Sue Jowett** modelling the cost-effectiveness of treatment for COPD in the BLISS study, he will then be working with **Emma Frew** on a trial-based economic evaluation in children with nephrotic syndrome, the PREDNOS trial. Tosin has a clinical background and completed his MSc in Health Economics & Health Policy at the HEU in 2013. Bishal will be working with **Tracy Roberts** measuring the cost-effectiveness of treatment for scabies and undertaking long-term decision analytic modelling to extrapolate costs and effects.



Hugh McLeod started a six-month secondment at Gloucestershire Clinical Commissioning Group in May. Hugh is developing a strategy for using outcome-based measures across the CCG. As part of this work, Hugh is looking at the possibility of the adoption of the ICECAP capability approach to measuring quality of life at both a strategic level and across a range of initiatives intended to strengthen the delivery of health and social care services to vulnerable individuals. For example, with a focus on older people, the ICECAP-O measure has considerable potential to provide a clear focus for both developing service innovation and quantifying impact on quality of life in Gloucestershire.



Jo Coast was extremely fortunate to be invited to visit Hitotsubashi University in Tokyo, Japan in March. She was taking part in a funded programme to explore capability measurement in health, and was hosted by Professor Reiko Gotoh, a well known economist working in the capability approach. Jo presented a paper exploring the development of the ICECAP measures and the possibilities for a future ICECAP measure for children, as well as contributing to work on the development of a Japanese translation of ICECAP-O. She also found a little time to see some of the sights in Tokyo!



Selected recent publications

Carroll FE, Rooshenas L, Owen-Smith A, **Al-Janabi H**, Hollinghurst S, Hay AD, Factors influencing parents' decision-making when sending children with respiratory tract infections to nursery, *Journal of Public Health* 2015. DOI:10.1093/pubmed/fdv037

Coast J, Smith RD, Distributional Considerations in Economic Responses to Antimicrobial Resistance, *Public Health Ethics* 2015. DOI: 10.1093/phe/phv004

Cooper NAM, Clark TJ, Middleton L, **Diwakar L**, Smith P, Denny E, **Roberts T**, Stobert L, **Jowett S**, Daniels J, on behalf of the OPT trial collaborative group, Outpatient versus inpatient uterine polyp treatment for abnormal uterine bleeding: randomised controlled non-inferiority study, *BMJ* 2015. DOI: 10.1136/bmj.h1398

Diwakar L, **Roberts TE**, Cooper NAM, Middleton L, **Jowett S**, Daniels J, Smith P, Clark TJ, An economic evaluation of outpatient versus inpatient polyp treatment for abnormal uterine bleeding, *BJOG: An International Journal of Obstetrics & Gynaecology* 2015. DOI: 10.1111/1471-0528.13434

Dretzke J, Riley RD, Lordkipanidze M, **Jowett S**, O'Donnell J, Ensor J, Moloney E, Price M, Raichand S, Hodgkinson J, Bayliss S, Fitzmaurice D, Moore D, The prognostic utility of tests of platelet function for the detection of 'aspirin resistance' in patients with established cardiovascular or cerebrovascular disease: a systematic review and economic evaluation, *HTA* 2015. DOI 10.3310/hta19370

Jordan RE, Majothi S, Heneghan NR, Blissett DB, Riley RD, Sitch AJ, Price MJ, Bates EJ, Turner AM, Bayliss S, Moore D, Singh S, Adab P, Fitzmaurice DA, **Jowett S**, Jolly K, Supported self-management for patients with moderate to severe chronic obstructive pulmonary disease (COPD): an evidence synthesis and economic analysis, *HTA* 2015. DOI 10.3310/hta19360

Keeley T, **Al-Janabi H**, Nicholls E, Foster NE, **Jowett S**, **Coast J**, A longitudinal assessment of the responsiveness of the ICECAP-A in a randomised controlled trial of a knee pain intervention, *Quality of Life Research* 2015. DOI 10.1007/s11136-015-0980-0

Kigozi J, **Jowett S**, Lewis M, **Barton P**, **Coast J**, Estimating productivity costs using the friction cost approach in practice: a systematic review, *The European Journal of Health Economics* 2014. DOI: 10.1007/s10198-014-0652-y

Lewis M, Wynne-Jones G, **Barton P**, Whitehurst DGT, Wathall S, Foster NE, Hay EM, van der Windt D, Should General Practitioners Issue a Sick Certificate to Employees Who Consult for Low Back Pain in Primary Care? *Journal of Occupational Rehabilitation* 2015. DOI 10.1007/s10926-014-9564-z

McLeod H, Blissett D, Wyatt S, Mohammed MA, Effect of Pay-For-Outcomes and Encouraging New Providers on National Health Service Smoking Cessation Services in England: A Cluster Controlled Study, *PLOS ONE* 2015. DOI: 10.1371/journal.pone.0123349

McLeod H, Heath G, Cameron E, DeBelle G, Cummins C, Introducing consultant outpatient clinics to community settings to improve access to paediatrics: an observational impact study, *BMJ Quality & Safety* 2015. DOI:10.1136/bmjqs-2014-003687

Peñaloza Ramos MC, **Barton P**, **Jowett S**, **Sutton AJ**, A Systematic Review of Research Guidelines in Decision-Analytic Modeling, *Value in Health* 2015. DOI:10.1016/j.jval.2014.12.014

Roberts KJ, **Sutton AJ**, Prasad KR, Toogood GJ, Lodge JPA, Cost-utility analysis of operative versus non-operative treatment for colorectal liver metastases, *British Journal of Surgery* 2015. DOI: 10.1002/bjs.9761

Sanghera S, **Frew E**, Gupta JK, Kai J, **Roberts TE**, Exploring the Use of Cost-Benefit Analysis to Compare Pharmaceutical Treatments for Menorrhagia, *Pharmacoeconomics* 2015. DOI: 10.1007/s40273-015-0280-0

Thorn J, **Coast J**, **Andronis L**, Interpretation of the Expected Value of Perfect Information and Research Recommendations: A Systematic Review and Empirical Investigation, *Medical Decision Making* 2015. DOI: 10.1177/0272989X15586552

Capacity building news

STUDENT FOCUS

Joanna Thorn BSc PhD MSc

Q: When did you study on the MSc in Health Economics and Health Policy?

A: I started the course on a part-time basis in 2009, and graduated in 2012.

Q: What were you doing before you took the course?

A: My background is in physical sciences (I have a chemistry PhD) - I was working for a physics journal publisher in various editorial and IT roles. Completely different!

Q: Why did you choose this course?

A: I have a very good friend who is a health economist - the work she was doing always seemed much more interesting than my own work! The choice of Birmingham was pragmatic - the week-long modular arrangements meant that it was straightforward to attend whilst working and living in Bristol.

Q: What did you enjoy most about the MSc?

A: I loved being introduced to new ideas - by the end of the first morning, I knew that I'd made the right choice. The modelling module was fun, and I met some great people!

Q: What was the greatest challenge for you when you were doing the MSc?

A: Fitting the assignments in whilst working part-time and looking after children - I did a lot of work at 6am!

Q: What was your dissertation topic?

A: I did a systematic review of the ways in which authors interpret expected value of perfect information (EVPI) values. So I looked at whether authors are more likely to recommend that further research is carried out on a topic if they found a high EVPI value.

Q: Did you present your dissertation findings or publish them?

A: I presented the work at the Health Economists Study Group meeting in Oxford (very useful forum for getting feedback!). The work has just been published in the journal Medical Decision Making.

Q: What have you gone on to do since finishing the course?

A: I started working for the Health Economics at the University of Bristol (HEB) group in 2010, in a role that combined applied economic evaluation alongside RCTs with methodology work. It's a fantastic work environment, and I have been encouraged to develop my own research interests. I'm particularly interested in improving costing methodology in trials, and am applying for funding to allow me develop this further.

Q: What do you think you will be doing four or five years from now?

A: I hope I will have contributed some tangible improvements to costing methodology, and I'm aiming to be able to apply for a lectureship.



We are delighted to congratulate **Alastair Canaway**

on his PhD success. Alastair successfully defended his PhD thesis, "Capturing the impacts of end of life care on those close to the dying for use in economic evaluation". There were three key components to Alastair's thesis: (i) developing a measure through qualitative interviews to capture the impact of end of life care on those close to the dying, (ii) valuing the measure using a novel approach known as 'deliberative valuation', and (iii) using hierarchical mapping to investigate the networks around those at end of life. Alastair was supervised by **Joanna Coast, Hareth Al-Janabi, Phil Kinghorn and Cara Bailey**. The research is part of the EconEndLife programme funded by the European Research Council.



We are pleased that HEU will again be involved in the European Health Economics Association (EuHEA) student-supervisor conference. Following last year's successful conference at the University of Manchester, this year's conference is at Paris-Dauphine University between 2nd and 4th September. The conference offers a unique opportunity for PhD students to present work in progress, gain feedback from supervisors and peers, and network with students from across Europe. Students with papers are allocated one hour for presentation and discussion led by another student's supervisor.

This year, two of our first year students, **Arjun Bhadhuri** and **Magda Aguiar**, will be presenting their work. Arjun, supervised by **Hareth Al-Janabi, Sue Jowett** and Kate Jolly, will be presenting on the validity of preference-based health measures for family carers. Magda, supervised by **Emma Frew, Lazaros Andronis, Miranda Pallan** and Wolfgang Högler, will be presenting on the cost effectiveness of strategies to prevent population vitamin D deficiency. Emma Frew will also be attending as our supervisor/staff representative. We hope that they all find the conference stimulating and useful (and of course enjoy Paris).



Hareth, Arjun, Kate, Sue



Miranda, Emma, Magda, Lazaros



We are pleased to welcome our NIHR Research Methods Intern to the Health Economics Unit for six weeks this summer. Louise Windmill, an Economics student at the University of Birmingham was the successful applicant from a strong field of second year undergraduate students. The aim of the NIHR Research Methods Internship is to stimulate interest in health economics and attract the brightest students into a career in health economics. With a focus on the health economics of medical tests, Louise will gain experience in economic modelling, systematic reviewing and data analysis.

MSc Programmes and associated short courses

HEU runs 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. To learn more visit: <http://www.birmingham.ac.uk/healthconomics>, contact Helen Evans on 0121 414 7694 or email healthconomics@contacts.bham.ac.uk