

Health Economics Unit

Welcome to the Winter 2015 edition of HEUnews!

As another year comes to a close, we probably have to remind ourselves that it really is nearly Christmas - forget sledging and instead just get out your wellies and umbrella! Nevertheless, HEU staff will still be celebrating. We are thrilled that two senior staff, **Hareth Al-Janabi** and **Emma Frew** have been successful with their fellowship applications (see below) and we have just heard good news about **Phil Kinghorn's** MRC New Investigator Grant (more in the next issue). We are also keeping fingers crossed for more good news as we await the outcomes of applications submitted by others in the Unit.

Inside we focus on other recent successes. HEUs **Mark Monahan** has impressed us all with the publicity and media attention surrounding his first publication; while **Sue Jowett** and **Phil Kinghorn** tell us about the costs and benefits of PPI involvement in our research and how we can improve its integration into practice (see page 2). The European Research Council funded Economics of End of Life Care team celebrated their final activity in September with stimulating 'world café' style workshop involving participants from the UK and across the globe. I suggest exerting some caution before inviting these participants around for Christmas lunch... your best Christmas tablecloths will be ruined!

One of our student alumni, Carla Deakin, who graduated in the summer (see picture on back page) provides her thoughts about how the MSc has helped her career. Carla is also presenting a paper based on her MSc dissertation at the Manchester HESG in January. In staff news, we are delighted by the recent and well-deserved promotions of **Hareth Al-Janabi** and **Louise Jackson**. Finally, we are thrilled to welcome two new members of staff, **Carol McLoughlin** and **Karen Pickering**, as it is the more the merrier for HEUs Christmas do!

Karen is one of the first graduates

from our new MSc
programme in Health
Economics and
Econometrics.

Season's Greetings and
Happy New Year!

Tracy Roberts
Head of Unit



What's new in HEU...

We are delighted to announce that **Emma Frew** and **Hareth Al-Janabi** have recently been awarded NIHR Career Development Fellowships that will provide research, training and development funding for 4 years.

Emma will be working with Birmingham City Council to evaluate the use of health economics for public health decision making focusing on childhood obesity services. Rising levels of childhood obesity presents a major challenge for public health and this research will use both established and novel methods within economic evaluation to conduct an in-depth evaluation of the cost-effectiveness of childhood obesity services across Birmingham. To do this research and to provide training and support, Emma will spend some of her time based at Birmingham City Council working closely with the Public Health team. Emma will also be working at the Manchester Centre for Health Economics with Professor Matt Sutton and Professor Katherine Payne.

Hareth's research will establish techniques to identify, measure, and value quality of life effects on family carers within economic evaluations. The research will use a variety of methods, including Delphi surveys, cognitive interviews and preference elicitation tasks. The work will be conducted in the context of dementia, mental health and stroke; conditions where interventions are likely to have important, and potentially unexpected, knock-on impacts on the family. Hareth will be supported in the research and training programme by a diverse group of advisers, and will be visiting experts in dementia care (Jan Oyeboode, University of Bradford), outcome valuation (Cam Donaldson, Glasgow Caledonian University; Eve Wittenberg, Harvard University) and economic evaluation methods (Werner Brouwer, Erasmus University).

Inside this issue:

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



The Telegraph

Iodine supplements for pregnant women could boost IQ and save NHS thousands

Mark Monahan was thrilled that his first publication received international press coverage. The paper, recently published in *The Lancet Diabetes & Endocrinology*, was devised by **Tracy Roberts** (HEU) after discussion with Kate Jolly (Public Health). Other co-authors include **Pelham Barton** (HEU), Kristien Boelaert and Shiao Chan (School of Clinical and Experimental Medicine).

An economic evaluation was undertaken to assess the costs and benefits of giving iodine supplements to all pregnant women in the UK. This is important because being iodine deficient during pregnancy is linked to lower intelligence in unborn children. The UK is believed to be iodine deficient but there is neither any national guidance on iodine supplementation for pregnant women nor any policy on food fortification of iodine at present.

The economic model was developed using the best available evidence with assumptions that were not favourable to iodine supplementation. These conservative assumptions then potentially underestimate any cost-saving findings. Benefits of iodine supplementation were concerned with the infant Intelligence Quotient (IQ) loss averted by making otherwise iodine deficient expectant mothers iodine sufficient. The results of the model showed that a policy of iodine supplementation for pregnant women was cost-saving from both a health and societal perspective.

The unfunded research was greeted with widespread media attention from national media (e.g. *BMJ* research news, *BBC news*, *The Times*, *The Independent* and *New Scientist*) to far-flung media outlets across the globe (e.g. *Brazil*, *Canada*, *Columbia*, *Iran*, *Nigeria*, *Pakistan*, and *Taiwan*). This is evident in the article's altmetric score (a measure of media research impact) in the top 1% of all research papers tracked.



Pelham, Kate, Tracy, Mark

Understanding the costs and consequences of patient and public involvement (PPI) in Primary Care Research

In recent years, there has been greater emphasis on involving patients and members of the public in health services research, and funders such as the National Institute for Health Research (NIHR) suggest that patient and public involvement (PPI) should be included in all aspects of research. However, more information is needed about the costs of PPI in health research and what impact it has on researchers, PPI representatives, institutions, funders and research itself.

A Keele University-led NIHR School for Primary Care Research (NIHR SPCR)-funded project, aimed to identify PPI activities taking place within the School, to explore the costs and consequences of these activities, and to develop recommendations to improve PPI practice. The HEU component of this work was led by **Sue Jowett** (co-investigator), and undertaken by **Phil Kinghorn** who was integral to the design of the data collection tools and all the analyses related to the economic components of the study.

The study involved an electronic survey to all lead researchers of SPCR projects to obtain information on PPI activities, including financial and non-financial costs and any perceived benefits. The results of this survey were then synthesised in order to construct a costs and consequences framework for PPI, outlining all the potential costs and benefits. An exploratory willingness to pay (WTP)-type pilot study was also undertaken to explore the feasibility of asking people to value PPI activities when allocating research funding. The WTP survey was sent to members of



Phil and Sue

NIHR Research for Patient Benefit (RfPB) regional funding committees, and contained two hypothetical research proposals. Responders were asked to state how much of a fixed budget should be spent on PPI, and give reasons for their response.

With the final report having been submitted to the funder, the research is currently being written up for publication. Results have recently been disseminated to representatives from the SPCR, including recommendations to ensure good PPI is consistently conducted within the School.

Pelham's Pen



A consultant surgeon and a health economist find themselves sitting next to each other on a long train journey. The surgeon thinks that economists cannot be as bright as surgeons and that he could easily demonstrate this, so he asks the economist if he would like to play a fun game. The economist is tired and just wants some sleep, so he declines politely and turns to take forty winks.

The surgeon persists, saying that the game is quite simple and a lot of fun. "I ask you a question, and if you don't know the answer, you pay me £5. Then you ask me one and, if I don't know the answer, I will pay you £500," he says.

This catches the economist's attention and, to keep the surgeon quiet, he agrees to play the game. The surgeon asks the first question, "What is the distance from the Earth to the Moon?"

The economist does not say a word, but reaches into his pocket, pulls out a five pound note, and hands it to the surgeon. He then asks "What goes up a hill with three legs, and comes down with four?" With that, he closes his eyes and settles back for his sleep.

The surgeon uses his laptop to search the net; he sends emails to all the smart friends he knows, but all to no avail. After an hour of searching, he finally gives up. He wakes the economist and hands over £500. The economist pockets the money and closes his eyes again. The surgeon is going mad not knowing the answer and so he wakes the economist up and says, "Well, what does go up a hill with three legs and comes down with four?"

The economist says "I don't know", reaches into his pocket, hands the surgeon £5, and says "Is it my turn again?"

Have you heard...

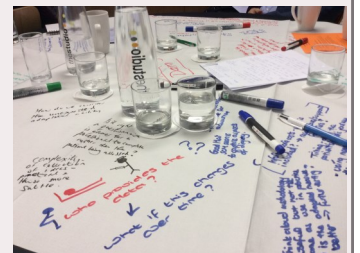
...what tablecloths and Economics of End of Life Care have in common?

In September 2015, the final activity of the EconEndLife programme of work, funded by the European Research Council, took the form of a workshop involving health economists and palliative care experts. The aim of the workshop was to discuss future research agendas within the economics of end of life care, in light of the findings from EconEndLife.



We were delighted to welcome participants from all around the UK, as well as from Ireland and Australia. Economists who participated had a range of normative persuasions across welfarist and extra-welfarist economics.

Aspects of the EconEndLife research were presented by Phil Kinghorn, Cara Bailey, Alastair Canaway and Jo Coast. After each presentation there was time for discussion, both of the EconEndLife findings and more generally of the issues tackled in the workshop. Themes included: measuring costs and benefits at end of life; valuation; incorporating friends and family in evaluations; and decision-making. The workshop was run in a "world cafe" style which involved much writing on tablecloths during the discussions to provide us with a record of the conversations and thoughts that participants had. Notes from the tablecloths are being typed up and will provide us with the basis for a paper from all participants outlining future research agendas.



Staff news

We are delighted to welcome two new members of staff, **Carol McLoughlin** and **Karen Pickering**, who joined HEU in November and will both be working with **Tracy Roberts**.

Carol is currently working on a trial based economic evaluation in intra-operative cell salvage during caesarean section for women at risk of haemorrhage (the SALVO trial). Carol completed an MSc in Health Economics in NUI Galway, in 2015.

Karen completed the MSc in Health Economics & Econometrics at the HEU in September with an NIHR funded studentship and will be graduating with Merit in December. She will be analysing the cost-effectiveness of uterotonic drugs in the prevention of postpartum haemorrhage.



Carol

Karen



Congratulations to **Hareth Al-Janabi** on his promotion to Senior Lecturer and to **Louise Jackson** on her promotion to Research Fellow (Level 2) this summer. In his role Hareth will be focusing mainly on research, leading an NIHR-funded project on economic evaluation and informal care (see 'What's new in HEU'). He will also be collaborating on research projects on outcome measurement, disability benefits, and societal preferences in public health. Louise will mainly be focussing on research connected with the economics of sexual health. This will include research on a new project "Understanding young people's perceptions of the value of STI testing" which will be featured in a future newsletter. Both Louise and Hareth would like to thank everyone in HEU for their support.

In early August, **Lazaros Andronis** was invited to give a seminar as part of the HERG External Seminar Series at Brunel University. Lazaros presented work on the 'value of information', including a simple framework for calculating 'implementation-adjusted' EVSI (IA-EVSI) values. Useful feedback and suggestions were received prior to submission of a paper for peer review, which has now been published in Medical Decision Making, with HEU's **Pelham Barton** as a co-author (see page 4).



Jo Coast presented to King's Health Economics at King's College London in June on the ICECAP measures. She focused on past developments, the current state of play with the measures, and some ideas for future work. The seminar was followed by a lively discussion, particularly around practical use of the measures in decision making.

Congratulations to Dr Philip Kinghorn who has been awarded an MRC new investigator grant.

'Priorities coming home' - The International Society on Priorities in Health (ISPHC) is bringing its 11th biennial meeting to the University of Birmingham 7-9 September 2016. www.birmingham.ac.uk/generic/priorities-conference-2016

Capacity building news

Many congratulations to all our students who graduated in July - we were thrilled to see so many of you at our celebration. We are pleased to welcome the new students who are just commencing on our Masters programmes. We are delighted that we have 25 students on the Health Economics and Health Policy MSc Programme and 4 students on our recently established MSc in Health Economics and Econometrics. Our new students have come from 14 different countries (including the UK) and we are pleased that they all seem to be settling in well. There have been many interesting discussions and debates so far in our classes and we look forward to working with you all over the year ahead as you progress in your studies.



Selected recent publications

Al-Janabi H, Van Exel J, Brouwer W, **Coast J**, A Framework for Including Family Health Spillovers in Economic Evaluation, Medical Decision Making 2015. DOI: 0.1177/0272989X15605094

Al-Janabi H, Van Exel J, Brouwer W, Trotter C, Glennie L, Hannigan L, **Coast J**, Measuring health spillovers for economic evaluation: a case study in meningitis, Health Economics 2015. DOI:10.1002/hec.3259

Andronis L, Analytic approaches for research priority-setting: issues, challenges and the way forward, Expert Review of Pharmacoeconomics & Outcomes Research 2015. DOI:10.1586/14737167.2015.1087317

Andronis L, **Barton P**, Adjusting Estimates of the Expected Value of Information for Implementation: Theoretical Framework and Practical Application, Medical Decision Making 2015. DOI: 10.1177/0272989X15614814

Andronis L, Billingham LJ, Bryan S, James ND, **Barton PM**, A Practical Application of Value of Information and Prospective Payback of Research to Prioritize Evaluative Research, Medical Decision Making 2015. DOI:10.1177/0272989X15594369

Bishop A, Tooth S, Protheroe J, Salisbury C, Ogollah RO, **Jowett S**, Hay EM, Foster NE, A pilot cluster randomised controlled trial to investigate the addition of direct access to physiotherapy to usual GP-led primary care for adults with musculoskeletal pain: the STEMS pilot trial protocol, Pilot and Feasibility Studies 2015. DOI:10.1186/s40814-015-0020-4

Dretzke J, Blissett D, Dave C, Mukherjee R, Price M, Bayliss S, Wu X, Jordan R, **Jowett S**, Turner AM, Moore D, The cost-effectiveness of domiciliary non-invasive ventilation in patients with end-stage chronic obstructive pulmonary disease: a systematic review and economic evaluation. Health Technology Assessment 2015. DOI:10.3310/hta19810

Frempong SN, **Goranitis I**, **Oppong R**, Economic evaluation alongside factorial trials: a systematic review of empirical studies, Expert Review of Pharmacoeconomics & Outcomes Research 2015. DOI:10.1586/14737167.2015.1076336

Liaropoulos L, **Goranitis I**, Health care financing and the sustainability of health systems, International Journal of Equity in Health 2015. DOI:10.1186/s12939-015-0208-5

Mantopoulos T, Mitchell PM, Welton NJ, McManus R, **Andronis L**, Choice of statistical model for cost-effectiveness analysis and covariate adjustment: empirical application of prominent models and assessment of their results, European Journal Health Economics 2015. DOI:10.1007/s10198-015-0731-8

Monahan M, Boelaert K, Jolly K, Chan S, **Barton P**, **Roberts TE**, Costs and benefits of iodine supplementation for pregnant women in a mildly to moderately iodine-deficient population: a modelling analysis, Lancet Diabetes Endocrinol 2015. DOI:10.1016/S2213-8587(15)00212-0

Ogwulu CB, **Jackson LJ**, Heazell AEP, **Roberts TE**, Exploring the intangible economic costs of stillbirth, BMC Pregnancy and Childbirth 2015. DOI:10.1186/s12884-015-0617-x

Oppong R, **Jowett S**, **Roberts TE**, Economic Evaluation alongside Multinational Studies: A Systematic Review of Empirical Studies, PLoS One 2015. DOI:10.1371/journal.pone.0131949

Penaloza-Ramos MC, **Jowett S**, Mant J, Schwartz C, Bray EP, Haque MS, Hobbs FDR, Paul Little, Bryan S, Williams B, McManus RJ, Cost-effectiveness of self-management of blood pressure in hypertensive patients over 70 years with suboptimal control and established cardiovascular disease or additional cardiovascular risk diseases (TASMIN-SR), European Journal of Preventive Cardiology 2015. DOI:10.1177/2047487315618784

Sutton AJ, **Breheny K**, Deeks J, Khunti K, Sharpe C, Ottridge RS, Stevens PE, Cockwell P, Kalra PA, Lamb EJ, Methods Used in Economic Evaluations of Chronic Kidney Disease Testing - A Systematic Review, PLoS One 2015. DOI:10.1371/journal.pone.0140063

Student focus: Carla Deakin, Associate Director – Diagnostics Assessment Programme, NICE

Carla graduated from the University of Birmingham in 2015 with an MSc in Health Economics and Health Policy. At the time of starting the course, Carla was working in the commercial diagnostic industry. Originally planning to undertake several short courses, Carla was told about the MSc and, after overcoming a fear of picking up academic studies after a gap of 25 years, decided to enrol.

After completing the MSc, Carla made a career change and was offered the opportunity to spend time at NICE in an interim role. Carla now has a permanent appointment as Associate Director for the Diagnostic Assessment Programme at NICE.

We asked Carla how the MSc had helped her in her career.

"I have spent my entire career working in the field of diagnostics and am passionate about the role diagnostics can play in delivering efficient and effective healthcare. I wanted to move from a commercial perspective where I was focusing on a limited range of products, to a role where I could help to increase understanding of the value of diagnostics more generally. This course was fundamental in helping me to make that change."

Completing the MSc was a critical factor enabling me undertake my current role with NICE."

Carla is pictured above (centre) graduating with her student cohort.

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: www.birmingham.ac.uk/healthconomics, contact Helen Evans on 0121 414 7694 or email healthconomics@contacts.bham.ac.uk