

Health Economics Unit

Welcome to the Summer 2017 edition of HEUnews!

Conference season is upon us again and whilst many HEU colleagues are enjoying presenting their work at iHEA in Boston this month (see below) some of us are compensating by presenting work and dominating the photos in this edition (it really is just a coincidence...!).

The research focus inside present's two important strands of research from HEU's *Women's Health* theme, referred to in the last edition. Within this theme a spectrum of research evaluates both trials and screening programmes and includes neonatal health and breast cancer. **Ilias Goranitis** presents an overview of the MRC funded Antibiotics in Miscarriage Surgery (AIMS) trial and **Karen Pickering** presents an overview of a new pulse oximetry evaluation funded by Public Health England. This project aims to explore whether pulse oximetry screening of the newborn has benefits beyond targeting critical congenital heart defects.

We extend a warm welcome to two new members of staff, **Patrick Moore** and **Iszara Blake** (page 3) and heartily congratulate the latest cohort of graduates from our MSc programme (page 4). Among those graduating was HEU's own **Ray Oppong** who shared the graduation celebration after being awarded his PhD on research into alternative methods of evaluating multinational trials. We are thrilled by HEU's repeated success in gaining three new NIHR studentships for the MSc Health Economics and Econometrics for another three years, and are now preparing to welcome our next cohort of students to both programmes. More information about the Health Economics MSc courses can be found [here](#).

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Tracy Roberts,
Head of Unit

What's new in HEU?

HEU on the Summer Conference Circuit

HEU has been ably represented at the iHEA Congress in Boston (7-11 July), by **Hareth Al-Janabi**, **Emma Frew**, **Louise Jackson**, **Patrick Moore** and **Magda Aguiar**.

As well as her involvement in the pre-congress session on the teaching of Health Economics, Emma was one of two speakers at the special organised session "Beyond causes and consequences: How can economics help tackle childhood obesity?" Louise, Hareth, Patrick and Magda all presented their work; Louise on designing sexual health services to meet the needs of young people in the UK, as part of a congress session on sex, infection and choices, for which Hareth acted as discussant. Hareth presented work on identifying treatment spillovers on family carers as part of the session on issues in public decision making. Magda presented her PhD work on modelling complex public health nutrition interventions. HEU's newest recruit Patrick, presented work on statins: "A complement or substitute for healthy behaviours", within the session on cardiovascular disease risks.

In June, **Philip Kinghorn** presented work on the use of deliberative methods to establish a sufficient state of capability well-being for use in decision-making at HESG in Aberdeen. **Louise Jackson** also presented a poster at the British Association for Sexual Health and HIV Annual Conference (Belfast, 18-20 June).



The AIMS (Antibiotics In Miscarriage Surgery) Trial

More than 210 million pregnancies have been estimated to occur each year worldwide, with 90% of them taking place in low income countries. Evidence suggests that nearly 84 million of these pregnancies end in either miscarriage or induced abortion. National and international guidelines on the surgical management of induced abortion recommend the use of prophylactic antibiotics to reduce the risk of infection. However, for the surgical management of miscarriage, sufficient evidence to support the routine use of antibiotic prophylaxis is lacking. In low income settings, infection occurs in up to 30% of women following surgical management of miscarriage and has significant morbidity and potentially mortality implications.

The AIMS Trial is funded by the Medical Research Council, the Wellcome Trust, and the Department for International Development in the UK to evaluate the effectiveness of antibiotic prophylaxis during the surgical evacuation of the uterus for miscarriage management in four low income countries (Malawi, Uganda, Tanzania, and Pakistan). The trial is led by Professor Arri Coomarasamy and the recruitment of 3,400 women has just been completed.

Professor Tracy Roberts and **Dr Ilias Goranitis** will now evaluate the relative cost-effectiveness of antibiotic prophylaxis in the surgical management of miscarriage. The clinical and economic findings of the AIMS Trial are expected to have a major impact on maternal health globally.



Tracy and Ilias

Cost-effectiveness of pulse oximetry screening to target CCHD and other serious conditions in neonates

Critical congenital heart defects (CCHD) are one of the leading causes of infant death in the developed world. Most newborns with CCHD can be stabilised and treated, however it is vital that the CCHD is detected sufficiently early, as timely recognition of these conditions is known to improve outcomes for infants.

Pulse oximetry screening is a simple test that can be carried out in babies to measure the amount of oxygen in their blood, and has previously been shown to be effective in detecting CCHDs in neonates. **Professor Tracy Roberts, Dr Pelham Barton** and colleagues, also produced evidence to show that the addition of pulse oximetry for the detection of CCHD to routine practice was likely to be a cost effective strategy.

A recent follow up study, funded by Public Health England, has suggested that in addition to CCHD detection, pulse oximetry screening is also effective at detecting other serious, but non cardiac related conditions – typically a respiratory problem or infection which, in the absence of pulse oximetry screening, may otherwise have gone undetected. It is likely that the early identification of conditions such as pneumonia and other forms of early onset sepsis, before the baby becomes unwell may represent a secondary target for pulse oximetry screening and prove to be an important additional advantage of the test.



Tracy, Karen, Pelham

Karen Pickering, with Tracy and Pelham are carrying out research funded by Public Health England. This research, aims to determine the relative cost-effectiveness of pulse oximetry screening to target both CCHD and other serious conditions, versus targeting CCHD alone when performed on babies within 24 hours of birth and compare these strategies to no pulse oximetry screening. The results will be used to inform guideline developers and policy makers across the UK.

Have you heard...

...about HEU representation on national & international funding panels?



Professor Tracy Roberts has been a core methodologist panel member for the NIHR Programme Grants for Applied Research (PfgAR) Panel since 2008 and has recently been appointed to sub panel chair. Tracy is pictured 2nd from right along with new sub panel chairs (*left to right*): Professor Paul Little (Director of PfgAR), Professor Marion Knight (Oxford), Professor Elaine Hay (Keele), Dr Rajinda Flora (Deputy Director). Tracy is also a panel member of the HEE/NIHR Integrated Clinical Academic (ICA) Programme Clinical Doctoral Research Fellowship Scheme Review (2015- present).

Dr Emma Frew was a panel member for the NIHR Doctoral Research Fellowship Scheme between 2013 and 2015, and since 2014 Emma has been a member of the Definitive Intervention Review Panel for the Health Research Board (HRB) in the Republic of Ireland.

Dr Sue Jowett is currently a member of the NIHR Health Technology Assessment Clinical Evaluation and Trials Board, joining in November 2016. Sue was previously a Regional Advisory Panel member for the NIHR Research for Patient Benefit funding scheme in the West Midlands (2012-2015).

Staff news...



We welcome **Patrick Moore**, who joins HEU as a lecturer in Health Economics.

Patrick graduated with a PhD in Health Economics from Trinity College Dublin in 2014 and previously worked on the Irish Longitudinal Study on Ageing (TILDA). His principal research interests relate to pharmacoeconomics and healthcare utilisation. Some of Patrick's current research is focused on determinants of medication use including personality and public health insurance. He is also examining competition in the private health insurance market for older people. In his new post, Patrick will be teaching on the MSc in Health Economics and Health Policy and developing new research projects.



We also welcome **Iszara Blake**, who joins HEU as a Research Associate. Iszara

graduated with an MRes in Research Psychology from the University of Birmingham in 2012, and previously worked at Nottingham University Hospitals (NUH). Iszara's principal research interests involve patient centred care, patient reported outcomes, mental health and qualitative methodologies. Iszara is currently working on the RAPID study (Real-Time Adaptive and Predictive Indicator of Deterioration) based at Birmingham Children's Hospital (BCH). The project is the first of its type in the world using real-time diagnostic information inspired by the world of Formula 1, and is aiming to save thousands of children and young people's lives.



We would like to congratulate our colleague **Dr Jesse Kigozi** and his new wife Adejoke on their very recent nuptials. We wish them every happiness.

Congratulations also to **Dr Raymond Oppong** after successfully defending his PhD thesis "Economic Analysis alongside Multinational Studies". Ray was supervised by **Tracy Roberts** and **Sue Jowett** and is pictured here at graduation in July 2017.



The pen of Pelham has recently been 'resting' whilst it's owner takes time out to watch live cricket, but straight from afternoon tea in the cricket pavilion is a short pen.

Pelham's Pen

How many health economists does it take to change a light bulb? Three – one to do the work and two to be co-authors on the paper. N.B. For some other subjects it would be four or more, but health economists have been known to publish papers with only three authors.

GRADUATION 12TH JULY 2017



Congratulations to all those who were able to attend graduation.
We wish you all well for the future!

Student Profile: Tobias Grand

Global Market Access Manager, ALK-Abelló
and Graduate Health Economist



Tobias studied on the MSc in Health Economics and Health Policy as a full time student, graduating in 2016. He joined the course soon after completing a masters degree in pharmaceutical sciences, and having worked briefly in Denmark. Tobias now works for a Danish based pharmaceutical company specialising in immunotherapy for allergies. HEUnews asked Tobias:

Why did you choose this course?

I knew that I wanted to work within health economics after several courses and internships, through which I'd had exposure to economic concepts and issues. I chose Birmingham as I knew that the intake for the MSc is typically quite diverse and because they were welcoming and accommodating of my background in life sciences.

What did you enjoy most about the MSc?

The combination of theory and practical computer excises was something I enjoyed a lot. I love to learn something and then apply the theory in a practical exercise; it was useful because it prompted me to evaluate what I had learnt. I also enjoyed the flexibility of modules being delivered over week-long blocks of teaching; this allowed me to complete the course whilst still being able to make trips over to Denmark.

What was the greatest challenge for you whilst doing the MSc?

Definitely time management, there is a lot to do. Writing essays was also a new discipline for me. Essay writing is definitely a skill in its own right.

What was your dissertation topic?

Early stage cost-effectiveness modelling in endometriosis.

How has the MSc helped you in your current role?

It would be impossible to work in my current role as a global market access manager without an understanding of health economics. We are the health economics experts within the company and it is our responsibility to conduct and then present the appropriate economic analyses to decision-makers.

Health Economics 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 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. Selected modules are also accessible as **short courses**, see website for details. For more information visit: www.birmingham.ac.uk/healthconomics or email healthconomics@contacts.bham.ac.uk

Selected recent publications

Bishop A, Ogollah RO, **Jowett S**, Kigozi J, Tooth S, Protheroe J, Hay EM, Salisbury C, Foster NE and the STEMS study team. STEMS pilot trial: a pilot cluster randomised controlled trial to investigate the addition of patient direct access to physiotherapy to usual GP-led primary care for adults with musculoskeletal pain. *BMJ Open* 2017. DOI: 10.1136/bmjopen-2016-012987

Franssen M, Farmer A, Grant S, Greenfield S, Heneghan C, Hobbs R, Hodgkinson J, **Jowett S** et al. Telemonitoring and/or self-monitoring of blood pressure in hypertension (TASMINH4): protocol for a randomised controlled trial. *BMC cardiovascular disorders* 2017. DOI: 10.1186/s12872-017-0494-5

Kamaruzaman H, **Kinghorn P**, **Oppong R**. Cost-effectiveness of surgical interventions for the management of osteoarthritis: a systematic review of the literature. *BMC Musculoskeletal Disorders* 2017. DOI: 10.1186/s12891-017-1540-2

Mitchell PM, **Al-Janabi H**, Byford S, Kuyken W, Richardson J, Iezzi A, Coast J. Assessing the validity of the ICECAP-A capability measure for adults with depression. *BMC Psychiatry* 2017. DOI 10.1186/s12888-017-1211-8

Monahan M, **Barton P**, Taylor CJ, Roalfe AK, Hobbs FR, Cowie M et al. MICE or NICE? An economic evaluation of clinical decision rules in the diagnosis of heart failure in primary care. *International Journal of Cardiology* 2017. DOI: 10.1016/j.ijcard.2017.02.149

Monahan M, Ensor J, Moore D, Fitzmaurice D, **Jowett S**. Economic evaluation of strategies for restarting anticoagulation therapy after a first event of unprovoked venous thromboembolism. *Journal of Thrombosis and Haemostasis* 2017. DOI: 10.1111/jth.13739

Ogwulu CB, **Jackson LJ**, **Kinghorn P**, **Roberts TE**. A Systematic Review of the Techniques Used to Value Temporary Health States. *Value in Health* 2017. DOI: 10.1016/j.jval.2017.03.009

Pickering K, **Monahan M**, Guariglia A, **Roberts TE**. Time to tighten the belts? Exploring the relationship between savings and obesity. *PLoS ONE* 2017. DOI: 10.1371/journal.pone.0179921

Sutton AJ, **Roberts TE**, **Jackson L**, Saunders J, White PJ, Birger R, Estcourt C. Cost-effectiveness of microscopy of urethral smears for asymptomatic *Mycoplasma genitalium* urethritis in men in England. *International Journal of STD & AIDS* 2017. DOI: 10.1177/0956462417717651

Taylor CJ, **Monahan M**, Roalfe AK, **Barton P**, Iles R, Hobbs FDR. The REFER (REFER for Echocardiogram) study: a prospective validation and health economic analysis of a clinical decision rule, NT-proBNP or their combination in the diagnosis of heart failure in primary care. *Efficacy Mech Eval* 2017. DOI: 10.3310/emeo4030