

Welcome to the latest edition of HEU news!

In this issue we present business (as usual), but do not pretend to have been untouched by the strange situation of lockdown and the impact of the pandemic on everyone, everywhere. Like everyone else in academia, HEU colleagues have had to adapt to home working (& home schooling), virtual teaching and ZOOMING-in to almost everything!

We were thrilled to receive the welcome news early in lockdown relating to the promotion success of colleagues, Dr Louise Jackson to the position of Senior Lecturer, and Dr Hareth Al-Janabi to Professor (see below)– this success for Hareth coming soon after the success of achieving a Wellcome Trust Investigator Grant. Meanwhile, within HEU's applied research portfolio, trial-based health economics analyses, typically conducted when the data are finally in, have been untouched by the pause in primary research instigated during the height of the pandemic. In this issue we report on two projects falling within HEU's Women's reproductive and sexual health research theme: The MifeMiso and VITA trials respectively (see page 2). In What's New (page 3), we report on a recently funded Contrast trial, which aims to measure the impact of the Covid-19 lockdown on adolescent learning, lifestyle behaviours and wellbeing. Elsewhere, the wellbeing of our student cohort has been a priority and we are delighted with their thumbs up reassurance to us that they are doing ok in the circumstances (page 4).

Finally, it is with a mixture of both pleasure and sadness that I take the opportunity of paying tribute to our esteemed HEU colleague Pelham Barton who has decided to take early retirement to pursue his various hobbies of cricket, music, more cricket and even more cricket. Pelham is well known nationally and internationally for his modelling genius. Pelham – your friends and colleagues in HEU will really miss you....Good luck.



Tracy Roberts
(Head of Unit)

Have you heard ...about recent promotions in the HEU Team?

We are delighted to announce the promotion of HEU's **Louise Jackson** to Senior Lecturer in Health Economics and **Hareth Al-Janabi** to Professor of Health Economics.

Louise joined HEU in 2011 after working in the NHS and Social Care for many years. Under Louise's leadership as Director of Teaching for HEU, our two MSc programmes have gone from strength to strength. Louise's research is concerned with developing the methodology of economic evaluation to ensure that the benefits of healthcare interventions are captured more fully. Louise is involved in leading economic evaluations for a range of grant-funded projects, including in public health and sexual health. She has also carried out methodological research exploring the methods used to measure outcomes in relation to interventions in sexual health, with a particular focus on digital interventions.



Hareth joined HEU in 2008 as a Research Fellow, conducting the research to develop the ICECAP-A capability measure with Professor Joanna Coast. In 2011, Hareth was awarded a MRC fellowship, which kick-started a programme of research on family carers and economic evaluation, funded through a further career development fellowship from the NIHR (2015-2019). This work has developed new theory, instruments, and valuation techniques related to carers. His study of family spillovers in meningitis influenced UK government provision of the MenB vaccination. He was recently awarded a Wellcome Trust Investigator Grant to lead a small team studying the process of mental wellbeing investment in schools and workplaces and how this can be best supported by evidence and policy.



VITA trial

HEU's **Louise Jackson** and **Zainab Abdali** are collaborating with Professor Jonathan Ross from University Hospitals Birmingham (UHB), and colleagues from the University of Nottingham, on the VITA trial. The trial is funded by the National Institute for Health Research (NIHR). It is a multicentre randomized controlled trial, designed to find out whether lactic acid gel is better than oral Metronidazole for the treatment of recurrent Bacterial Vaginosis (BV). BV is a vaginal infection caused by overgrowth of bacteria. It is associated with physical and psychological effects that may lead to miscarriage and increased risk of developing HIV and sexually transmitted infections.



Antibiotics such as Metronidazole are the standard treatment option for BV, however, they are associated with multiple recurrences and side effects. Almost \$4.8 billion is spent on treatments each year around the world. Therefore to reduce the pressure on the health systems, an alternative option is needed to offer high efficacy, reduce recurrences and limit antibiotic use. The VITA trial is investigating the effectiveness of topical lactic acid gel as an alternative to antibiotics, as this has been found to be a potentially effective treatment through restoring vaginal pH and natural bacteria (microbiome).

Our team is conducting an economic evaluation alongside the trial to explore the cost-effectiveness of topical lactic acid gel for the treatment of recurrent BV. The aim of the evaluation is to estimate healthcare resource use and costs associated with the use of lactic acid gel compared to metronidazole to resolve BV episodes. Additionally, the analysis will look at the impact of both options on women's quality of life.

MifeMiso Trial

Miscarriage affects approximately 1 in 5 pregnancies and is associated with considerable physical and psychological impact on patients. Studies have demonstrated that distress from a miscarriage is equivalent to that from stillbirth, and miscarriage is estimated to cost the NHS £81 million per year.

First trimester missed miscarriage is defined as intrauterine death of the fetus without expulsion of the pregnancy tissue, occurring during the first 14 weeks of pregnancy. Management of a missed miscarriage can be conducted in one of three ways; expectant, medical or surgical. Many women seek active management using medical intervention to expedite the expulsion of non-viable pregnancy tissue. However, there is uncertainty regarding the optimal drug regimens for medical management. Before the current NICE guideline (2012) was published, the common practice was to use a combination of Mifepristone and Misoprostol. However, the 2012 NICE guideline recommended that women should be treated with Misoprostol alone. This recommendation was based on limited evidence from a single study on 112 women.



HEU's **Chidubem (Duby) Ogwulu**, **Eleanor Williams** and **Tracy Roberts**, are collaborating with Clinicians from the Birmingham Women's Hospital on the MifeMiso trial, a randomised placebo-controlled trial, which aims to investigate whether treatment with Mifepristone in combination with Misoprostol would result in a higher rate of miscarriage resolution when compared with placebo in combination with Misoprostol. A trial-based economic evaluation will assess the cost-effectiveness of the intervention in the medical management of first trimester missed miscarriage. Additionally, a model-based economic evaluation will explore the cost-effectiveness of the intervention with alternative management strategies. A decision model has been constructed to carry out the analysis, which will be populated using evidence from the MifeMiso trial, in addition to secondary data.

CONTRAST study is launched to measure the impact of Covid-19 lockdown on adolescent learning, lifestyle behaviours and wellbeing.



The Covid-19 (lockdown) restrictions have resulted in big changes to our lives. A major change for most children is that they are no longer going to school.

The CONTRAST study was launched in early June and aims to explore the short-term impacts of the lockdown restrictions on learning, eating behaviours, physical and other activities, and wellbeing in children aged 11-15 years. Working with the study team, led by Miranda Pallan from the University of Birmingham, HEU's **Emma Frew** will be leading the health economics and will explore differences in time-use, wellbeing and learning behaviours. The team will also follow up children once they are back at school, so that they can explore the longer-term effects of the Covid-19 restrictions.

More details about this study can be found here: [CONTRAST-study](#)

LVAD: Assessing the cost-effectiveness of Left Ventricular Assist Devices

HEU's **Pelham Barton** is leading the Health Economics section of a project funded by NIHR to assess the cost-effectiveness of Left Ventricular Assist Devices for a new group of patients. The project is led by Dr David Moore from the Institute of Applied Health Research at the University of Birmingham, in collaboration with clinicians at Queen Elizabeth Hospital Birmingham. The devices are currently used by patients with heart failure who are awaiting a heart transplant.

This project looks at the additional use of the devices as "destination therapy" by patients who are expected to remain on them for the rest of their lives, but will take into account the possibility that a device may be given to a patient who is not considered suitable for transplant at the moment but, may be considered as a candidate for transplant in the future.

It's the end of an era for HEU as we announce the retirement of Dr Pelham Barton



Pelham Barton was a secondary school teacher for 11 years, teaching mathematics and computing. Pelham came to Birmingham in 1994 to take the Postgraduate Diploma course in Operational Research, which he passed with Distinction. He was then funded as a Postgraduate Teaching Assistant to teach some of the material on that course and work towards a PhD entitled "Extending System Dynamics".

Pelham joined the **Health Economics Facility** (as it was then known) in October 1998 and soon established himself as a valuable member of the team. Under James Raftery's leadership, HEF took a leading role in establishing the principle that specialist decision modelling skills should be embedded within the Health Economics team.

Pelham has been heavily involved with the teaching given by HEU over the years. He has had three spells as Programme Director for the long-established masters course in Health Economics and Health Policy and was largely responsible for the development of the teaching that forms the bulk of the Modelling for Health Economics module.

Pelham's own research work included methodological and applied work on the use of modelling across a wide range of clinical areas. This included a number of projects sponsored by the National Co-ordinating Centre for Health Technology Assessment which fed into the deliberations of the Technology Appraisal Committee at NICE. Pelham has been an author of over 100 peer-reviewed publications and a supervisor of ten successful PhD students.

We asked Pelham what he might be likely to be up to once he has some spare time, and for some of you the answer will be no surprise. Pelham said he was looking forward to being able to watch cricket in his own time without always being on call for questions about work, and to have the time to carry out some statistical and historical research about the game. In addition to cricket, Pelham is looking forward to having more time to attend concerts (mainly classical music) and theatre, and to visit certain places that he has never been.

A lover of humour, when we asked Pelham for one final pen, he couldn't resist taking a literal interpretation of our request.

We will be sad to see Pelham leave us at the end of July, and wish him every happiness for a long and healthy retirement.



PGT weekly Zoom

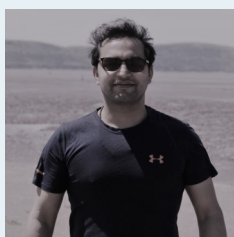
Since the beginning of lockdown we have kept in touch with our MSc students via a weekly Zoom chat.

We have enjoyed hearing all the tips on cooking, reading, and TV viewing, as well as discussing how we are all dealing with the changed circumstances.

Our international students also gave us some insight into how their countries were dealing with the pandemic. It has been great to hear the experiences of the students and we hope they have enjoyed sharing with us too.



Student profile: Amrit Banstola



Amrit completed the MSc in Health Economics and Health Policy as a full-time student during the 2018-19 academic year. He was inspired to study health economics after his MSc in Public Health included a health economics component. The opportunity of enrolling onto an MSc arose after Amrit joined the multidisciplinary team working on the NIHR Global Health Research Group on Nepal Injury Research. The Research Group is led by the University of the West of England, where Amrit works as a research associate.

What attracted you to study at the University of Birmingham?

Because the course is delivered over week-long teaching blocks, it made it easier for me to manage my study and work balance.

What did you enjoy most about the MSc?

The mix of theoretical and practical sessions, particularly computer sessions using STATA.

What was your dissertation topic?

The economic burden of road traffic injuries in Nepal. A publication from my dissertation has just been published in the International Journal of Environmental Research and Public Health. I am thankful to my supervisors, HEU's **Pelham Barton** and **Jesse Kigozi**, and Professor Julie Mytton (UWE Bristol) for their support with preparing and submitting the manuscript.

Selected publications

Abdali ZI, Roberts TE, Barton P, & Hawkey PM (2020) "Economic evaluation of Faecal microbiota transplantation compared to antibiotics for the treatment of recurrent *Clostridioides difficile* infection". *The Lancet EClinicalMedicine*

Afentou N & Kinghorn P (2020) "A Systematic Review of the Feasibility and Psychometric Properties of the ICEpop CAPability Measure for Adults and Its Use So Far in Economic Evaluation" *Value in Health*

Christensen H, **Al-Janabi H**, Levy P, Postma MJ, Bloom DE, Landa P, ... & Lorgelly P (2020) "Economic evaluation of meningococcal vaccines: considerations for the future". *The European Journal of Health Economics*

Guets W, **Al-Janabi H**, & Perrier L (2020) "Cost-Utility Analyses of Interventions for Informal Carers: A Systematic and Critical Review". *PharmacoEconomics*

Sheppard JP, Burt J, Lown M, Temple E, Lowe R, Fraser R, Allen J, Ford GA, Heneghan C, Hobbs FR, **Jowett S** et al (2020) "Effect of Antihypertensive Medication Reduction vs Usual Care on Short-term Blood Pressure Control in Patients With Hypertension Aged 80 Years and Older: The OPTIMISE Randomized Clinical Trial". *JAMA*

Tahir W, **Monahan M**, Dorling J, ... & **Roberts TE** (2020) "Economic evaluation alongside the Speed of Increasing milk Feeds Trial (SIFT)". *Archives of Disease in Childhood - Fetal and Neonatal Edition*.

MSc & PhD Research

Banstola A, **Kigozi J**, **Barton P** & Mytton J (2020) "Economic Burden of Road Traffic Injuries in Nepal" *Int. J. Environ. Res. Public Health*

Monahan M, **Jowett S**, Pinkney T, Brocklehurst P, Morton DG, **Abdali Z**, & **Roberts TE** (2020) "Surgical site infection and costs in low-and middle-income countries: A systematic review of the economic burden". *Plos One* 2020

McLoughlin C, Goranitis I, **Al-Janabi H** (2020) "Validity and responsiveness of preference-based quality of life measures in informal carers: a comparison of 5 measures across 4 conditions". *Value in Health*